NATIONAL CENTER FOR STATE COURTS
International Programs
2425 Wilson Boulevard, Suite 350
Arlington, VA 22201
www.ncsconline.org

AZERBAIJAN LEGAL DATABASE (ALPI) PROJECT

SECOND QUARTERLY REPORT
OCTOBER – DECEMBER 2004

Submitted 17 January 2005

by

Charles Shapiro, Chief of Party

USAID/Caucasus/Tbilisi

Contract Number
AEP-I-00-00-00011-00
IQC Task Order No. 810

SECOND QUARTERLY REPORT
AZERBAIJAN LEGAL DATABASE (ALPI) PROJECT
OCTOBER – DECEMBER 2004

INTRODUCTION

The United States Agency for International Development (USAID), in the summer of 2003, funded a study to assess the feasibility of having the Government of Azerbaijan (GoAZ) implement and sustain a database containing the country's framework legal documents. Based on the favorable findings in the 2003 assessment, USAID funded the Azerbaijan Legal Database (ALPI) Project, with the National Center for State Courts (NCSC) as the contractor.

The long-term objective of the ALPI Project is to develop within the GoAZ the institutional capacity to make the country's framework legal documents readily available and easily accessible over the Internet and on CD-ROMs. Having an "official" database that contains a complete, accurate and timely collection of Azerbaijan's framework documents is critical to achieving transparency, one of the key benchmarks for a country operating under the Rule of Law. The designated GoAZ counterpart agencies for the ALPI Project are the Ministry of Justice (MoJ), the country's official repository of its framework legal documents, and to a lesser degree, the Office of the President.

The ALPI Project began in mid-June 2004. By late June 2004, NCSC had established an office in Baku. The Project's first quarterly report, covering the period from start-up through 30 September 2004, was submitted on 15 October 2004. This is the second quarterly report for the Project, and covers the period from 1 October 2004 to 31 December 2004. It contains the following three sections: Overview; Major Activities; and Obstacles.

OVERVIEW

The purpose of this "Overview" section is to provide a context to better understand the nature and scope of the ALPI Project, and the activities undertaken by NCSC to date and, more specifically, during the fourth quarter of calendar year 2004.

Under the current Constitution of Azerbaijan, adopted in November 1995, Azerbaijan's legal system is comprised of the country's normative acts. The Constitution defines the normative acts in the following hierarchy: the Constitution, Acts Adopted by Referendum, Laws Enacted by the Parliament, Presidential Decrees, Resolutions of the Cabinet of Ministers, and Ministerial Regulations. A normative act may be amended by a subsequent normative act of equal level within the hierarchy.

The Constitution also specifies that the country's Constitutional Court has the sole power to "interpret" the normative acts. The decisions of the Constitutional Court (as well as its Supreme Court), however, are not normative acts. Presidential Orders and Orders of the Cabinet of Ministers are also not normative acts. However, because Presidential Orders and Orders of the Cabinet of Ministers are included in the official digest, *Toplusu*, they are considered to be framework legal documents.

Each framework document has an official identification number, an issue date and an effective date. The effective date is the date of initial publication in an official newspaper (e.g., the *Azerbaijan Gazette*), unless the document expressly designates an effective date. Publication in an official newspaper usually occurs within a day or two of the issuing date. Only documents that are effective on the date of publication, however, are published in the newspaper.

Several months after the framework documents are issued, they are published in one of two official GoAZ monthly digests, *Toplusu* and the *Bullitini*. *Toplusu*, published by the Office of the President, contains the higher level framework documents (i.e., the Constitution, Laws, Presidential Decrees and Orders, and Cabinet of Ministers Resolutions and Orders), and includes both those documents published in the official newspaper and those that have not been. The *Bullitini*, published by the MoJ, contains those Ministerial Regulations that have been registered with the MoJ. Publication of *Toplusu* and the *Bullitini* began in July 1997. The most recent published issue of Toplusu is September 2004.

From July 1997 through September 2004, nearly 6,100 framework document have been published in *Toplusu*, in close to 22,000 pages. The initial issues of *Toplusu* contain the Constitution (the very first document), and the framework documents issued since the Constitution was adopted in 1995. The volume of framework documents published in the *Bullitini* is not yet known, but the volume is significantly less than the volume published in *Toplusu*, as very few Ministerial Regulations are registered with the MoJ as normative acts.

The most significant governing rules of Azerbaijan are contained in "Codes" (e.g., the Criminal Code, the Civil Code, the Land Code, etc.). There are 17 currently effective Codes. Codes are adopted by laws passed by the Parliament and approved by the President in Presidential Decrees. As such, the 17 existing Codes have the effect of law, and are critical to the Azerbaijan legal system. These Codes are also amended from time to time by new framework documents (i.e., laws passed by the Parliament and approved by the President in Presidential Decrees).

As in any legal system, there are relationships between and among Azerbaijan's framework documents. These relationships fall into one of four categories: (1) those that implement a framework document that is higher in the hierarchy of normative acts; (2) those that adopt a Code; (3) those that amend an existing framework document; and (4) those that amend an existing Code. Amendments to an existing Code or to an existing framework document include additions, deletions, and other changes in the provisions of the Code or the framework document, respectively.

The Azerbaijan legal database, first and foremost, needs to contain the complete text of all of the country's framework documents. The text needs to be made available in text format. The text also needs to be made available in image format, to enable a user accessing the database over the Internet or on CD-ROMs to verify the accuracy of the text-formatted document.

The database also needs to contain the text of the complete, current version of each Code and, as resources permit, the updated text of each framework legal document that has been amended. The process of integrating amendments into an existing Code (e.g., the "Criminal Code") or into an existing framework document (e.g., the "Law on Advocacy") in order to have a complete, current version of that Code or framework document is referred to as "codifying." With respect to codified documents in the Azerbaijan legal database, the existing 17 Codes have the highest priority, followed by amended laws. Codified documents in text format have no counterpart image format.

In addition to the documents that will comprise the ALPI Project database, the database needs to contain computer-based tools to search for and retrieve them. Given the nature and scope of the database, together with the limited resources of the GoAZ to sustain the database, it is neither necessary nor desirable to have a robust search engine. Instead, the principal tool that will be made available to search for and retrieve the documents in the database is each document's associated "metadata" – that is, critical data about each document in the database, such as its subject-matter classification categories, its title, its official identification number, its issue date, its effective date, its relationship to other documents, etc.

Information technology resources are required in the "workflow environment" (1) to create the contents of the database (that is, each framework document in text and image format, each codified document in text format, and a metadata record for each document), and (2) to maintain and update the database as new framework documents are issued. Information technology is also required to distribute the database and to make it accessible over the Internet and on CD-ROMs.

The NCSC/Baku office, since start-up, has been functioning as a prototype workflow environment. In this capacity, the NCSC/Baku office has been: collecting the existing body of framework documents; converting these documents to digitized format for inclusion in the database; codifying Codes; and creating the metadata records for each document. These activities continued in the October-December 2004 quarter. In addition, several new activities were undertaken during this quarter to achieve the long-term objective of the ALPI Project.

MAJOR ACTIVITIES – OCTOBER-DECEMBER 2004

The major activities undertaken during the quarter are organized: first, by database content; second, by information technology; and third, by a miscellaneous category.

Database Content Activities – October-December 2004)

Major Activities	Comments
Acquired the missing 5 volumes of *Toplusu*, and another complete set of *Toplusu*	The Office of the President in the previous quarter was only able to provide two-thirds of the over 90 issues of *Toplusu*, as it did not have a complete set in inventory. By the close of the previous quarter, the Project had acquired 25 of the missing 30 issues. With the exception of the National Library in Baku, there does not appear to be a complete set of *Toplusu* within any public or governmental institution in Azerbaijan
Completed the conversion to image format of each of the nearly 22,000 pages published to date in *Toplusu* (each page is a JPEG file)	Approximately 17,000 pages in this quarter

Completed the creation of image-formatted documents for each of the nearly 6,100 documents published to date in *Toplusu* (each document is a MS Word file containing its associated JPEG image files)	Approximately 5,000 documents in this quarter
Compiled the image-formatted documents for *Toplusu* Year 2000 on one CD-ROM (nearly 900 documents in close to 5,000 pages) with a text-formatted Table of Contents hyperlinked to each document, as a by-product of the database	This by-product is a "model" for publishing an electronic version of *Toplusu*. To our knowledge, the National Library in Baku is the only public or governmental institution in Azerbaijan, including the Office of the President, that has a complete set of *Toplusu*
Based on the "model" Year 2000 CD-ROM *Toplusu* image by-product, compiled a separate annual 1997-2004 CD-ROM *Toplusu* image product	Year 1997 covers the months of July through December (July 1997 was the first issue of *Toplusu*). Year 2004 covers the months of January through August (August was the last published issue of *Toplusu* when the Year 2004 by-product was produced). Attachment 1 shows the complete set of CD-ROM *Toplusu*, together with its counterpart printed *Toplusu*.
Completed the conversion to text format of close to 2,500 of the nearly 6,100 documents published to date in *Toplusu* (each document is a MS Word file, with the text exceeding the minimum 99.9% standard for accuracy)	Approximately 1,700 documents in close to 7,000 pages this quarter; the remaining 3,600 *Toplusu* documents that have not as yet been converted to text format are projected to be completed by the end of January 2005
Completed the metadata records for nearly 1,800 of the 2,500 *Toplusu* documents that are in both text and image format	Approximately 1,000 metadata records in this quarter
Verified and approved the metadata records content for over 1,100 of the 1,800 completed metadata records	Approximately 700 metadata records in this quarter
Completed the codification process for the Civil Code, the Timber Code, and the Execution of Penalties Code (bringing the total number of completed codified Codes to 6 of the currently effective 17), with a 7th Code, the Code of Criminal Procedure, in progress; the three codified Codes completed in the July-September 2004 quarter were the Land Code, the Family Code, and the Code of Civil Procedure	The Civil Code contains 1325 Articles, of which 204 have been amended. The Timber Code contains 30 Articles, of which 2 have been amended. The Execution of Penalties Code contains 182 Articles, of which 13 have been amended.

Continued to track new framework documents published in the *Azerbaijan Gazette* newspaper – 79 were published in October, 43 in November, and 48 in December; the *Azerbaijan Gazette* is now available over the Internet, which means that those framework documents published in the *Gazette* are available in text format	The July-September 2004 quarterly report indicated that 30 new framework documents were published in the *Azerbaijan Gazette* in August, and 58 in September. The number of framework documents published in *Toplusu* for these two months were 66 in August and 96 in September. Thus, a substantial portion of the framework documents are currently not generally available to the public until publication of *Toplusu*, which is several months after the documents are issued.

Information Technology Activities – October-December 2004

The principal information technology activities during this quarter continued to focus on using the NCSC/Baku office as a prototype facility, to acquire the necessary experience and knowledge base to develop the technology required to enable personnel in the ultimate workflow environment to create new database content, to update and maintain the database, and to distribute the database over the Internet and on CD-ROMs.

To this end, short-term consultant Ken Yates, a United States based legal information database expert, completed in mid-November 2004 a "Systems Analysis and Database Design" report. Mr. Yates' report, attached hereto as Attachment II, not only focused on the activities required in the workflow environment and the software necessary to support these activities, but also on the software functionality required by the public in accessing the database over the Internet and on CD-ROM. See Attachment II for details.

Mr. Yates then followed up this report with a second short-term consulting assignment in Baku in December 2004. The purpose of this study was to document the workflow activities in the NCSC/Baku office, to develop a "model" workflow environment, and to indicate the nature and scope of the training program that will be required for Workflow Users in the ultimate workflow environment. Mr. Yates' second report is attached hereto as Attachment III.

In the first week in January 2005, the NCSC/Baku office staff was permitted for the first time to observe and document the manual workflow process within the MoJ. This observation and documentation would have been undertaken during Mr. Yates' December 2004 assignment in Baku, but for the intervening holiday period. Attachment IV contains the documentation for the manual MoJ workflow process. This document should be compared to the model workflow environment set forth in Attachment III.

As a result of consultant Yates' two reports and the MoJ workflow process observed and documented, the NCSC/Baku office, working with Mr. Yates, has made numerous modifications and refinements to the technical specifications for the software required to be developed to implement the ALPI Project database in the ultimate workflow environment. These technical specifications form the basis for a Request for Proposal (RFP) scheduled to be released on 17 January 2005.

The RFP calls for three software packages to be developed in the first half of calendar year 2005 – (1) database management software, (2) content management software, and (3) public user database access software. The first two software packages will be required in the ultimate workflow environment to maintain, update and distribute the database, and will have a higher

priority in the development schedule. The goal will be to have these two packages available in early April 2005, followed then by the public user access software. Implementation of the software will be on the equipment installed in the NCSC/Baku office, to enable the NCSC/Baku office to continue to operate as the prototype workflow environment. The RFP is attached hereto as Attachment V, to provide a context for this major development activity.

In anticipation of the software development effort, the NCSC/Baku office upgraded its technology during the October-December quarter, by installing on its network Microsoft (MS) Small Business Edition software. This software package includes MS SQL, MS Exchange Server, and MS ISA Server. In addition, a more robust anti-virus software package was purchased and installed.

Miscellaneous Activities – October-December 2004

One major miscellaneous activity occurred during the fourth quarter of 2004 – an official opening of the NCSC/Baku office in mid-December. The opening, coordinated by USAID and the United States Embassy, was timed to follow on what appeared to be a break-through in obtaining cooperation by the MoJ. Until early December, the MoJ had been unwilling to participate actively in the ALPI Project without a signed Memorandum of Understanding (MOU). See the "Obstacles" noted in the July-September 2004 Quarterly Report.

After several exchanges of drafts of the MOU, to incorporate comments and concerns raised by the MoJ, the Ministry agreed to support the project. However, numerous procedural and other potential obstacles remain in processing the MOU before it can be executed. To solidify the agreed-to cooperation and in an effort to expedite the processing of the MOU, the media (local TV and press) were invited to the opening, as well as numerous dignitaries from various GoAZ Ministries (e.g., Office of the President, Parliament, MoJ, Foreign Affairs, etc.). The list of GoAZ invitees is attached hereto as Attachment VI. In addition to the media and the GoAZ officials, other attendees were numerous United States Embassy officials, lead by the Honorable Reno Harnish, the Ambassador, and numerous USAID officials, including the local Mission Director, Jim Goggins, and the Regional (Caucasus) Deputy Director, Robert Wilson.

At the opening, the ALPI Project Chief of Party, Charles Shapiro, made a brief presentation. This, in turn, was followed by remarks by the Ambassador Harnish. Ambassador Harnish and Mr. Shapiro are shown in the picture to the right.

In his remarks, Ambassador Harnish highlighted the significance of the project in terms of achieving good governance by having an official legal database that is complete, current and accurate, and that is readily and easily accessible by the public. He also focused on the need to sustain the database by the GoAZ once the ALPI Project ends.

Following Ambassador Harnish's remarks, several spokespersons for the various GoAZ organizations in attendance added their comments as to the significance of the project for the people of Azerbaijan. After the formal presentations, numerous lively private question and answer sessions occurred with the assembled media.

The picture to the left shows several government officials who attended the opening, and reporters taking notes during Ambassador Harnish's presentation.

A local newspaper account of the opening is attached hereto as Attachment VII.

OBSTACLES

Having a signed MOU between USAID and the MoJ appears to be, at best, a couple of months off. Despite not having the MOU, however, the MoJ finally permitted the NCSC/Baku office staff to have access to its processes and staff for the first time in the first week in January 2005. Thus, it appears that some cooperation and active participation by the MoJ has been achieved.

Nevertheless, the lack of an executed MOU poses a long-term threat to having a ready, willing and able GoAZ organization to assume responsibility for sustaining the ALPI Project database. Moreover, even with a signed MOU, there is no guarantee that the personnel in the MoJ workflow environment will have the necessary motivation to continue to maintain, update and distribute the database. The Office of the President has shown a greater willingness to support the project and actively participate, but as the MoJ is the official repository of the country's framework legal documents, the MoJ remains the logical principal counterpart agency.

As noted in the July-September 2004 Quarterly Report, it remains critical that that USAID obtain an executed MOU with a counterpart GoAZ agency as soon as possible. Without such an agreement, it may become necessary to explore alternative solutions for achieving sustainability.

ATTACHMENT I

Since the first month of publication of *Toplusu* in July 1997 through the most recent published volume in September 2004, nearly 6,100 framework legal documents in approximately 22,000 pages have been published. The entire collection is now available on CD-ROM in image format, in 8 separate CDs (one per year). Each CD-ROM contains a Table of Contents, organized by month and within the month by framework document Article number and title, to provide a quick and convenient method to locate a document.

Toplusu Year 2000 contained the most number of pages published to date in any one year. In Year 2000, 882 framework legal documents requiring 4,871 pages were published in 15 volumes. *Toplusu* is published once a month, with the date being the last day of the month. Because of the number of pages required in Year 2000, some months had to have more than 1 volume. The one *Toplusu* CD-ROM Year 2000 contains the entire year's collection of framework documents in image format.

ATTACHMENT II

NATIONAL CENTER FOR STATE COURTS
International Programs
2425 Wilson Boulevard, Suite 350
Arlington, VA 22201
www.ncsconline.org

Azerbaijan Legal Database (ALPI) Project
Systems Analysis and Design Report
Submitted 15 November 2004
By
Kenneth A. Yates
Information Communications Technology Consultant

USAID/Caucasus/Tbilisi

Contract Number
AEP-I-00-00-00011-00
IQC Task Order No. 810

Systems Analysis and Design Report
Azerbaijan Legal Database (ALPI) Project
November 2004

Executive Summary

The long-term objective of the ALPI project is to assist the government of Azerbaijan[1] (GoAZ) to create the institutional capacity to digitize, organize, and systematically distribute the country's legal framework documents[2] in a complete, timely and accurate database system and to provide its citizens easy access to these documents through the Internet and on CD-ROM.

Any successful legal database system must meet a minimum standard for each of the following criteria:

Criteria	Minimum Standard
Accessibility	Convenient access to documents through a delivery technology that is easy to use
Reliability	Consistent and stable maintenance of the database system and access to documents through a dependable and easily serviceable delivery technology
Sustainability	Ability to support a growing body of framework documents combined with a flexible capability to distribute documents through new delivery systems
Scalability	Ability to incorporate additional types of documents into the database system and delivery technology with minimal constraints, and to add growing numbers of users at diminishing unit costs

To create the capacity for a legal database system for the government of Azerbaijan that will meet these criteria, while working within a dynamic environment where an exchange of ideas, proposals, and plans often lead to decisions that are temporary and transient, requires an iterative design approach and the use of prototyping. Such an approach was recommended by Kazimierz Lobaza[3] in July 2004 and reflects the prototypical work currently being implemented by Charles Shapiro, ALPI Project Chief of Party (COP).

[1] As of this date, the determination of the specific office tasked with this responsibility has not been made within the Azerbaijan government.

[2] Legal framework documents include those established since the time of the country's national independence and those documents that continue to be issued by the government. As such, the following document groups comprise legal framework documents: The Constitution, Acts adopted by referendum, Laws passed by Milli Majlis (Parliament), Presidential Decrees, Presidential Orders, Cabinet of Ministers Resolutions, and Ministerial Regulations.

[3] Hardware and Software Specifications report, July 11-21, 2004

Mr. Shapiro has provided various documents in connection with the preparation of this report, including: (1) a draft of the system functional requirements; (2) a draft schematic showing the overall search and retrieval functionality; (3) a draft chart showing the metadata information to be captured for each framework document; (4) a draft chart showing the metadata information to be captured for each codified Code; (5) the standards for converting framework documents to text format and to image format; (6) a screen showing the metadata data entry screen currently being used for each framework document; (7) various draft search and retrieval screens; (8) a draft of the production environment workflow activities; (9) the model codified Land Code; (10) the technical assessment report submitted by ITC consultant John Sherman; (11) the technical assessment report submitted by ITC consultant Kazimierz Lobaza; and (12) several helpful general background materials, such as the ALPI Project Workplan and the Quarterly Report for July through September 2004. In addition, there have been numerous communications between this author and Mr. Shapiro over the past several months.

Based on an analysis of the above information, this current report finds that:

- The iterative approach to the system development is both logical and reasonable.
- The development of prototype workflow processes and software applications is consistent with this approach and provides opportunities for GoAZ incremental approvals and "buy-in."
- The next logical step in this iterative approach would be to develop the database system using the software applications appropriate for the final production environment.
- With limited additional staffing, the National Council of State Courts (NCSC)/Baku office would have the opportunity to complete all that is required to make the ALPI database available to the public.

These findings are based on the "Preliminary Analysis", below, of the assumptions, general requirements and current status of the ALPI Legal Information System. In addition, they take into consideration the specific system requirements and recommended database design contained in this report.

Following the Preliminary Analysis there are three sections:

1. System Requirements
2. Proposed System Design
3. Hardware and Software Recommendations

Preliminary Analysis

To determine the most appropriate long-term sustainable legal information system for a developing country requires a systematic analysis of all related issues and all possible alternatives. In performing this analysis it is important to recognize that the technology must be based on requirements of the information comprising the database, and on the requirements of the end users accessing the database. All other considerations flow from the information requirements and the end user requirements. These dual requirements need to be analyzed in detail as the first step in the process of determining the appropriate legal information system. Every aspect of the legal information system that is ultimately implemented flows directly from the findings and conclusions in the Preliminary Analysis.

Assumptions

Based on the documents provided by the ALPI Project's COP and on numerous communications with the COP via telephone, email, Internet instant messaging, and VOIP, listed below are the assumptions of the document workflow processes and repository for Azerbaijan's framework legal documents.

- The Ministry of Justice (MoJ) is currently responsible for the recording and classifying of all framework legal documents.
- The MoJ is currently using manual tools for the processing of all framework legal documents.
- The Office of the President publishes in print format the official monthly digest *Toplusu*, which contains the higher level legal framework documents (i.e., Constitution, Laws, Presidential Decrees and Orders, and Cabinet of Ministers Orders and Resolutions).
- The MoJ publishes in print format the official monthly digest *Bullitini*, which contains the lower level framework legal documents (i.e., Ministerial Regulations).
- Publication of *Toplusu* and the *Bullitini* began in July 1997.
- The cumulative volume of framework legal documents published in *Toplusu* since 1997 is approximately 5,800 in around 20,000 pages (less than 4 pages per document on average).
- The volume of framework legal documents currently published annually in *Toplusu* is averaging about 800 in 3,000 pages (again, an average of less than 4 pages per document).
- Comparable numbers for the *Bullitini* have not been provided, but it appears that the volume published cumulatively and on a current annual basis in the *Bullitini* is substantially less than the volume published *Toplusu.*
- There are three dates associated with each framework legal document -- (1) the date the document was issued; (2) the date the document became effective; and (3) the date the document is published in the official digest.
- The effective date for each framework legal document is the date published in the newspaper, which usually is within a day or two of the date of issuance, unless provided otherwise in the framework document.
- Each framework legal document has an official citation, and may have one or more unofficial citations.

- There are 17 Codes currently in effect.
- Both the MoJ and the Office of the President are currently using manual techniques to maintain and update the codified Codes.
- The codification process is more labor intensive than the recording and classifying of framework documents.
- Both the MoJ and the Office of the President have an existing Web site that could be used to provide links to the legal database system.
- Access to the Internet in Azerbaijan is still quite limited (with the exception of Baku), but is improving constantly, both in terms of availability and bandwidth.
- The potential number of end users is not known, but does not appear to be excessively large.
- There are several private database vendors in Azerbaijan that appear to be ready, willing and able to provide additional added-value features to any official database made available by the GoAZ.

General Requirements

Based further on the documents provided by and various communications with the ALPI Project COP, listed below are the critical technology-related general requirements for the ALPI Project legal information system.

- The system should be sustainable within the limits of the available resources of the GoAZ.
- To the extent possible, the workflow processes to sustain the system should conform to the current workflow processes to maintain the country's framework legal documents.
- The workflow environment for the maintenance and updating of the system and for its distribution should be located within either the Ministry of Justice (MoJ) or the Office of the President, with the MoJ as the logical choice as it is the official repository of the country's framework legal documents.
- The system should represent the complete and accurate repository of Azerbaijan's framework legal documents which, through this proposed system, should be made available in a timely basis over the Internet and on CD-ROM.
- The database needs to contain a complete and current codified version of each Code.
- The contents of the database (the framework legal documents and the codified Codes) need to be made available in text format on a reliable and easily accessible basis to lawyers, government officials, law professors, law students, and the population at large.
- Although not an absolute need, it is highly desirable to make the framework legal documents also available in image format, to enable an end user to verify the accuracy of a text formatted framework legal document and to verify the accuracy of the editorial work done in a codified Code.
- Having all framework legal documents in image format provides an opportunity to make complete sets of *Toplusu* and the *Bullitini* available on CD-ROMs as a by-product of the ALPI Project, as no organization in Azerbaijan, with the exception of the National Library, appears to have a complete set of either digest in print form.

- The contents of the database should also be distributed on CD-ROMs, to provide access for those end users that do not have access to the Internet or where access is not reliable or acceptable in terms of performance.
- The database system should provide the means for an end user to find and then have displayed the documents in the database.
- The end-user interface for accessing the database system should to be the same for accessing the database over the Internet and on CD-ROMs.

Current Status

Database Document Creation. Due to both the GoAZ's limited resources and the lack of a Memorandum of Understanding as yet with either the MoJ or the Office of the President, the NCSC/Baku office has, out of necessity, been required to create the initial contents of the ALPI Project database. The plan that the NCSC/Baku office is implementing is both appropriate and reasonable considering the iterative approach to the project.

The NCSC/Baku office has engaged an outside vendor to convert all framework legal documents published in *Toplusu* to digital files in both text format and image format under well-defined stringent standards. The office has indicated that all text formatted documents are in Microsoft Word, at an accuracy level that, so far, is in excess of the minimum required 99.9%. All image formatted documents are compiled in Microsoft Word by inserting individual document JPEG images scanned at 150 dots per inch. The office has adopted logical file naming conventions for all Microsoft Word documents in text format and in image format.

In addition, the NCSC/Baku office staff has commenced the codification of Azerbaijan's Codes. The codified Codes are being assembled in Microsoft Word and the document files are named using a logical naming convention. A prototype of the codified Land Code has been approved by both the MoJ and the Office of the President as an acceptable method of representing the current and complete updated version of a Code. Codification work on the remaining 16 Codes is in process at the NCSC/Baku office. Doing this work in-house provides the NCSC staff with the necessary experience to train GoAZ personnel in the creation and updating of a codified Code.

The NCSC/Baku office has also determined the various types of data (metadata) that should be added to the database both to further describe the documents contained in the database and to facilitate searching for and retrieving documents from the database. Adhering to the iterative approach of the ALPI project, the office has created a prototype database and has commenced entering this metadata into the database. The software being used to capture the metadata is Microsoft Access and an "express" version of Microsoft SQL. Upon completion of the database proposed in this report, the data from the existing Access database must be transferred (ported over) to the corresponding tables proposed in this design. The metadata currently being entered into the Access database by the NCSC/Baku office for each framework document and each codified Code is listed in the *System Requirements* section that follows.

Workflow processes. By prototyping the ALPI database, digitizing framework documents and codifying codes, the NCSC/Baku office is also determining the hardware, software and workflow

processes required to efficiently process documents that are to be added to the ALPI database system once it is transferred to the GoAZ.

The focus of the remainder of this report is on the features, functionality and the activities required to support the creation, maintenance and updating of the database, and to enable an end user to access the database through search and retrieval.

System Requirements

The cumulative number of framework legal documents published in the *Toplusu* since 1997, which are to be included in the ALPI database, is approximately 5,800 encompassing around 20,000 pages (an average of less than 4 pages per document). The annual number of framework legal documents published by the *Toplusu* is approximately 800 consisting of about 3,000 pages (an average again of less than 4 pages per document).

Comparable numbers for the *Bullitini* have not been provided, but it appears that the volume published cumulatively and on a current annual basis in the *Bullitini* is substantially less than the volume published *Toplusu*.

This section summarizes the metadata requirements for the framework documents and the codified Codes, as well as the requirements for the content management system to add, retrieve, edit, and delete metadata and document files to the database. These requirements have been developed by the NCSC/Baku office.

Metadata for Framework Documents
The potential metadata for each framework legal document consists of the following:

- Official Citation
- Title
- Subject-Matter Classification
- Type
- Issuing Institution
- Issue Date
- Effective Date
- Unofficial Citations
- Signatory
- Registration Date
- Registration Number
- Status
- Path to Document in Text Format
- Path to Document in Image Format
- Association to each Related Document
- Data Entry Personnel Identifier
- Data Entry Date/Time
- Approval Personnel Identifier
- Approval Date/Time

Metadata for Codes
The potential metadata for each codified Code is as follows:

- Title
- Effective Date
- Unofficial Citations
- Description
- Path to Document in Text format
- Data Entry Personnel Identifier
- Data Entry Date/Time
- Approval Personnel Identifier
- Approval Date/Time

Content Management System
To implement the currently proposed functionality for metadata, the content management software will need to support the following:

- Multiple users with assigned authorization levels (assigned at the administrative level)
- Enter data using:
    - pull-down menus
    - textboxes
    - popup menus
    - checklists
    - calendar applet
    - radio buttons
- Enter multiple data entries in designated fields
- Upload document files
- Detect input errors
- Save a record
- Search, retrieve, and edit a metadata record and a document
- Print a metadata record
- Print a document file

Proposed System Design

Overview
In any database system, all data is entered in fields. In the ALPI database system, entry of data in selected fields is mandatory; in other fields it is optional. Some fields permit multiple entries, such as the subject-matter classification field. Certain fields are designed to be queried by an end user using the search features. Summary information for each document in the database is available using its metadata information.

The design also proposes to reduce the amount of manual data entry required by editorial personnel, thus reducing the margin for error. This is accomplished through pull-down menus, and other efficient methods, for many of the fields.

The proposed design for searching the database incorporates the use of a simple string search on the Home Page for searching all records in the database and returning a list of records that match the string criteria. The Home Page also includes both advanced search and pre-defined search functionality. The advanced search contemplates the use of pull-down menus and other tools for an end user to identify the search criteria to be entered for a query. Pre-defined searches are equivalent to "browsing" in the proposed database system, and are useful for certain commonly-requested queries, for example, the Codes, recent documents added to the database, and so forth.

The next section sets forth the design of the database system for delivery over Web-based environments: the Internet, intranets, and extranets. The design is in three parts: a description of the proposed database, the specification of the content management system, and the user interface.

Design for Web-based Environments

Database

The proposed database design shown in Figure 1 is based on a normalized relational approach consisting of a set of data tables described in Tables 1 through 3. The tables list the fields in the database and the description of the data contained in the field.

Table 1
Workflow User Information Data Tables for ALPI Database

Table	Description
users	Contains user information with respect to login and access levels.
user_access_levels	Contains the user access level information for system users. Separating this data from the users table conforms to normalization standards and reduces human error in data entry.

Table 2
Framework Documents Data Tables for ALPI Database

Table	Description
framework	Contains data listed in the *Requirements* above and currently being captured by the NCSC/Baku office for each framework document. The table also includes identification numbers, internally generated by the system, that relate the data in other tables to the data in this table.
framework_citations	Contains individual citation information corresponding to each framework document. Allows for multiple citations to be issued for each framework document.
framework_classifications	Contains individual classification information corresponding to each framework document. Allows for multiple classifications to be issued for each framework document.
framework_related_frameworks	Contains the data linking an individual framework document to other related framework documents.
framework_related_codified_codes	Contains the data linking an individual framework document to related codified codes.
framework_types	Contains the type information for framework documents. Separating this data from the framework table conforms to normalization standards and reduces human error in data entry.
framework_institutions	Contains the institution information for framework documents. Separating this data from the framework table conforms to normalization standards and reduces human error in data entry.

framework_signatory	Contains the signatory information for framework documents. Separating this data from the framework table conforms to normalization standards and reduces human error in data entry.
framework_status	Contains the status information for framework documents. Separating this data from the framework table conforms to normalization standards and reduces human error in data entry.

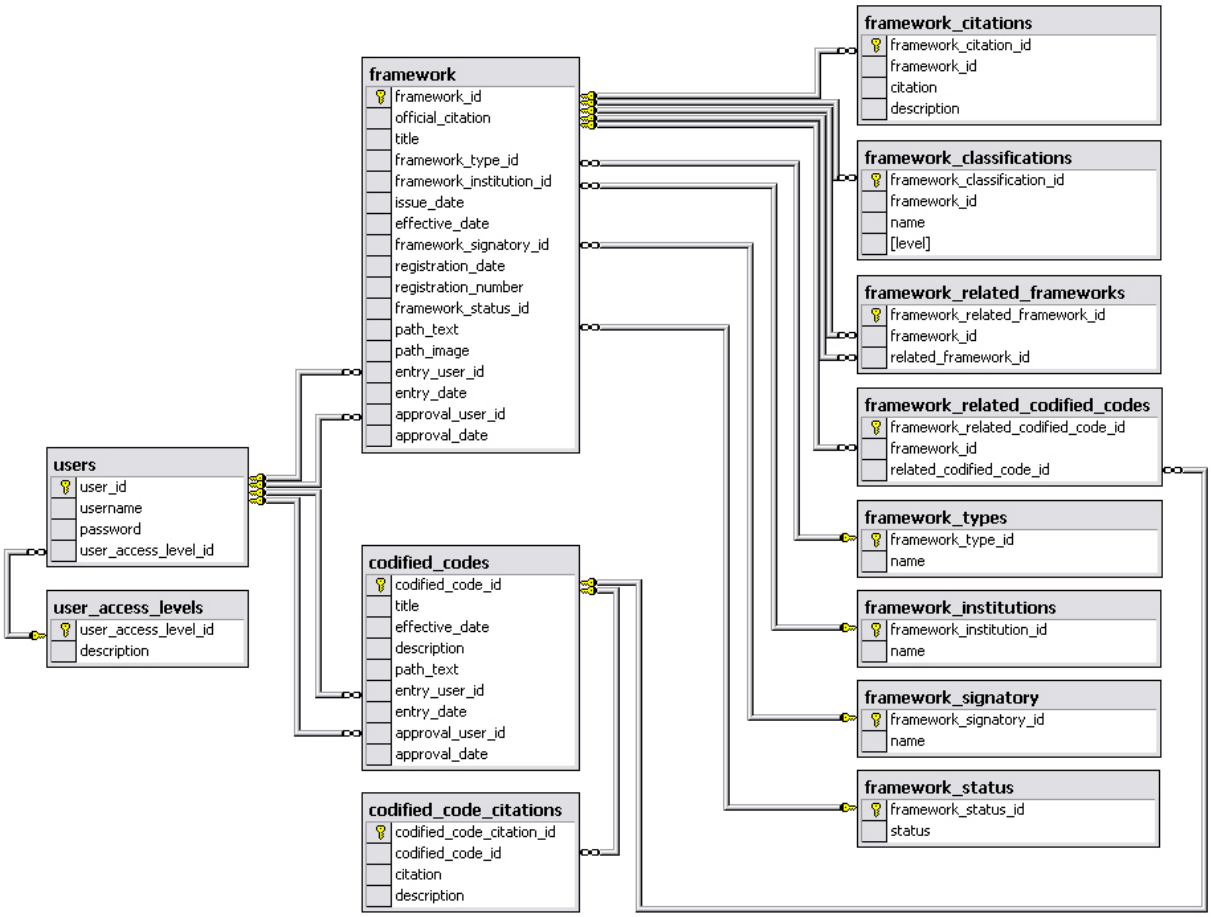
Table 3
Codified Codes Data Tables for ALPI Database

Table	Description
codified_codes	Contains data listed in the *Requirements* above. The table also includes identification numbers, internally generated by the system, that relate the data in other tables to the data in this table.
codified_code_citations	Contains individual unofficial citation information corresponding to each codified code. Allows for multiple citations to be issued for each codified code.

This proposed design does not include provisions for security and user tracking. The type and amount of data captured for each user will be determined by the NCSC/Baku office based on its prototyping experience.

The NCSC/Baku office is currently capturing metadata for framework documents using Microsoft Access and an "express" version of Microsoft SQL. This data must be ported over to the corresponding tables proposed in this design upon completion of the database system.

Figure 1
Proposed ALPI Database Design



Content Management System

The Content Management System (CMS) is the software application that manages Workflow User access to the database at specific levels of authorization, and provides the means to add, edit, delete and manage the data contain in the various data tables within the database.

The proposed CMS incorporates levels of authorization for each User. The User is assigned a level by the administrator of the database. Each level and a description of the functions available to the User for that level are described below.

CMS Login Pages

Page	Name	Description
1	Login	Accepts Username and Password to authenticate user.
2A	User	Add documents; Search or Browse documents for editing specified fields
2B	Supervisor	Add documents; Search or Browse documents for editing specified fields; Add to drop down menus; approve new entries for public access
2C	Admin	Add documents; Search or Browse documents for editing specified fields; add to drop down menus; approve new entries for public access; list, add, edit and delete users; change user password and access level.

When the Workflow User has successfully completed the login, the user will be presented with a screen that lists the functions that corresponds to the authorized level for that User, as noted in the above table. In addition, each Workflow User, regardless of authorization level, will have the Simple Search and Advanced Search functions present on the initial page after login. These Simple Search and Advanced Search functions are identical to those available to the Public User. The search functions are described in the next section, *Public User Interface*, and enable the Workflow User to retrieve documents for review or editing.

To add documents to the ALPI database system, the Workflow user, by choosing the appropriate function, is presented with either the Add Framework Document or Add Codified Code screen. A list of the fields for these screens follows. The list incorporates the table which holds the field, the method of data input, whether the field is Mandatory (M) or Optional (O), and the error-checking method.

Add Framework Documents Screen

Field	Table	Input Type	M or O	Error-Check
Title	framework	Textbox	M	>5 characters
Official Citation	framework	Textbox	M	= designated convention and unique
Additional Citations	framework_citations	Popup[4]	O	If entered, must be unique
Type	framework_types	Dropdown	M	One value selected
Classifications	framework_classifications	Checklist	M	At least one value selected
Institution	framework_institutions	Dropdown	M	One value selected
Issue Date	framework	Textbox + Calendar[5]	M	Valid date convention; within acceptable date range
Effective Date	framework	Textbox + Calendar	M[6]	Valid date convention; within acceptable date range
Signatory	framework_signatory	Dropdown	M	One value selected
Registration Date	framework	Textbox + Calendar	M[7]	Valid date convention; within acceptable date range
Registration Number	framework	Textbox	M[8]	Valid number within convention
Status	framework_status	Radio	M	One value selected
Text File	framework	File Inputs	M	Valid MS Word document
Image File	framework	File Inputs	M	Valid MS Word document
Related Documents	framework_related_frameworks;	Popup[9]	O	N/A

[4] A window that allows for the entry of multiple citations and descriptions for those citations
[5] A calendar object would be created to allow for easy selection of a date. Same for the Effective Date and Registration Date.
[6] If specified, then Mandatory; otherwise Optional.
[7] If a Ministerial Regulation, then Mandatory; otherwise not applicable.
[8] If a Ministerial Regulation, then Mandatory; otherwise not applicable.

	framework_related_codified_codes			

In addition to the data entered by the Workflow user, certain data is automatically populated by the system into the record in the **Add Framework Documents Screen** including**:**
Data Entry User Identification
Date of Data Entry

Add Codified Code Screen

Field	Table	Input Type	M or O	Error-Check
Title	codified_codes	Textbox	M	>5 characters
Unofficial Citations	codified_code_citations	Popup	O	If entered, must be unique
Effective Date	codified_codes	Textbox + Calendar	M	Valid date convention; within acceptable date range
Description	codified_codes	Textbox	M	> 20 characters
Text File	codified_codes	File Input	M	Valid MS Word document
Related Documents	framework_related_frameworks; framework_related_codified_codes	Popup[10]	O	N/A

In addition to the data entered by the Workflow user, certain data is automatically populated by the system into the record in the **Add Framework Documents Screen** including**:**
Data Entry User Identification
Date of Data Entry

Search and Browse
The results of Search and Browse will list the documents that match the search/browse criteria.

[9] A window would open to allow for the searching and adding of related Framework Documents and Codified Codes.
[10] A window would open to allow for the searching and adding of related Framework Documents.

Public User Interface Search Functionality
The Home Page of the public user interface, as well as the search page for the CMS, contains a simple string search textbox enabling the user to search the entire database for both framework legal documents and for Codified Codes.

The Home Page also contains an "Advanced Search" link that leads the user to a search section that provides for additional search criteria.

The table below lists the fields that are searched in a simple string search and the methods used for the advanced search.

Table
Fields for Simple and Advanced Search

Field	Simple String Search	Advanced Search[11]
Official Citation	X	Textbox
Title	X	Textbox
Classifications	X	Dropdown
Type	X	Dropdown
Institution	X	Dropdown
Issue Date		Date Range
Effective Date		Date Range
Additional Citations	X	Textbox
Signatory	X	Dropdown
Registration Date		Date Range
Registration Number	X	Numerical Range
Status	X	Dropdown

Pre-defined Searches ("Browse")
In addition, the Home Page of the public user interface contains pre-defined search patterns to produce lists of documents for browsing by the user. As an example, a user may choose to view "Codes" in which a list of all 17 Codes would be produced. Other pre-defined "browse" options might include: Constitution, Presidential Documents, Cabinet of Ministers Documents, all documents issued since a specified date, and so forth. All pre-defined searches will be defined by the NCSC/Baku office based on their prototyping experience.

Search Results
The results of a search are a List View of metadata fields matching the search criteria, whether a Simple String Search, Advanced Search, or a Pre-defined (Browse) Search.

The fields displayed will be the determined by the NCSC/Baku office based on its prototype experience, but may include fields such as Title, Official Citation, and Issue Date, as examples.

[11] All advance search fields are optional. When used, "and" logic is applied between fields; and "or" logic is used within fields.

The fields displayed for each item in List View are hyperlinked to the full metadata for that item. Hyperlinks to the Text document and the Image document would also be displayed enabling the user to easily retrieve the full document from this List View.

A checkbox next to each item in the List View provides the functionality of selecting multiple items to display the full metadata of each item on a single page.

System Design – CD-ROM

An additional requirement for the ALPI database is to have the database available on CD-ROM. In this instance, an application would be developed to allow off-line search and retrieval of the database from a CD-ROM using a standard Internet browser and a simple interface that the typical Personal Computer user can fully utilize without any additional costs.

To achieve this objective, a new, simple application is recommended. The application could be written in Visual Basic, C++, or MS.NET. The application would provide a graphical user interface similar to the public Web-based interface. This interface would integrate with a simple database program, such as JetDB (Microsoft Access) or MSDE (Microsoft Data Engine), which would reside on the CD-ROM along with the viewer application. When inserted in the end user's CD-ROM drive, the application would prompt the user to save and install the simple database program and application on the user's Personal Computer. This provides the user with the capability to search and retrieve documents on the CD-ROM in the same way as through the Web-based application.

The CD-ROM application would run on any standard Windows-based computer.

To publish the ALPI database on CD-ROM then, the following files must be included on the CD-ROMs:

1. Public User interface application
2. Database application (JetDB or MSDE)
3. Complete metadata records of the ALPI database
4. Text files
5. Image files

Based on the current estimates of the NCSC/Baku office with respect to the number of documents that would be added annually to the ALPI database, two or more CD-ROMs might be required to publish the database, depending on how frequently the database is published. The frequency of publishing the ALPI database on CD-ROMs and the content to be distributed on the CD-ROMs will be based on prototyping experience.

Hardware and Software Recommendations

Database Architecture and Underlying Software. Based on the technical assessment reports submitted by consultants Sherman[12] and Lobaza, the COP of the NCSC/Baku office has determined that Microsoft.Net will be used for the architecture and Microsoft SQL will be the underlying database management software. These decisions are appropriate given the nature and scope of the projected ALPI database content and the availability of maintenance and support of Microsoft products in Azerbaijan.

Whether the ultimate document processing environment is the MoJ or the Office of the President, a local area network will be required within the environment to support all activities for the creation, maintenance, updating and distribution of the database system. Although, the required hardware for the document processing environment cannot be determined until the decision is made as to which agency, the MoJ or the Office of the President, will be responsible for sustaining the database, the specifications can be determined for the database architecture, the content management system, and the user interface. These specifications, however, may need to be modified slightly, however, based on the final hardware configuration.

Minimum Hardware Recommendations

Brand name servers, such as Dell, HP, IBM, and so forth, should be purchased for the ALPI database project. The minimum recommended hardware requirements are as follows:

Production Servers

It is recommended that these servers be located at a commercial co-location facility with proper environmental controls (power back-up, air conditioning, and so forth) and 24/7 server management.

Production Database:
- 4 - 2.2 GHz CPU
- 2 GB DDR400 MHz RAM (PC3200)
- 3 - 73 GB 10K RPM Ultra 320 SCSI Hard Drives in Raid 5 Configuration.
- Microsoft Windows Server 2003 Standard Edition

Production Web Server:
- 2 - 2.2 GHz CPUs
- 2 GB DDR 400 MHz RAM (PC3200)
- 3 - 73 GB 10K RPM Ultra 320 SCSI Hard Drives in Raid 5 Configuration.
- Microsoft Windows Server 2003 Web Edition

In the event that the servers are co-located at a commercial hosting facility, most co-location facilities accept only rack mount servers.

[12] John Sherman, Project Initiation Assessment Report, July 2004

Development Server for Workflow Process

This server would be located where the workflow processes are conducted. Initially, this location could be the NCSC/Baku office during the iterative prototyping phase and until such time as the system is transferred to the GoAZ.

Workflow / Development / Internal Web & Database Server:
- 1 2.0 GHz CPU
- 1 GB DDR 266 MHz RAM (PC2100)
- 3 - 120 GB 7200 RPM IDE Hard Drives in Raid 5 Configuration
- Microsoft Windows Server 2003 Web Edition

Other hardware and software may be required for firewall security, back-up, and redundancy for load balancing, as determined by the NCSC/Baku office based on its prototyping experience.

ATTACHMENT III

NATIONAL CENTER FOR STATE COURTS

International Programs
2425 Wilson Boulevard, Suite 350
Arlington, VA 22201
www.ncsconline.org

Azerbaijan Legal Database (ALPI) Project
NCSC/Baku Task Analysis and Proposed Workflow Model

Submitted 14 January 2005

By
Kenneth A. Yates, M.S. Ed.
Information Communications Technology Consultant

USAID/Caucasus/Tbilisi

Contract Number
AEP-I-00-00-00011-00
IQC Task Order No. 810

Azerbaijan Legal Database (ALPI) Project
NCSC/Baku Task Analysis and Proposed Model Workflow

Introduction

This report documents the workflow activities currently underway to create the Azerbaijan Legal Database (the "database") at the NCSC/Baku office using behavioral and cognitive task analysis methods. Based on these analyses and certain "moving forward" assumptions, a Workflow Model is proposed to implement the ALPI database in its ultimate workflow environment. The level of knowledge and skills required by the ALPI project personnel are identified, and training that corresponds to these requirements is recommended.

In addition to training for knowledge and skills, this report also recommends that motivational and organizational factors be addressed during the planning, development, and implementation stages of the project to ensure the sustainability of a current, complete, and accurate ALPI database.

In addition, this report recommends that a system for evaluation be established to assess whether, in fact, there is sustainability of the achieved organizational goals.

Current Status

The NCSC/Baku office is operating as the prototype workflow environment. As such, the NCSC/Baku office has undertaken several activities since start-up, to create and implement the database. These activities have focused on the content that will comprise the database and on the technology to create, maintain, update and distribute the database.

The database content will consist of five principal components: (1) framework legal documents in image format; (2) framework legal documents in text format; (3) updated (or codified) versions of currently effective Codes, with each Code being a separate document; (4) updated (or codified) versions of certain framework documents; and (5) metadata records containing critical data about each framework legal document and each codified Code. The information contained in the metadata records will be the principal tool to search for and retrieve the documents in the database.

With respect to the database content, the NCSC/Baku office, to date: (1) has collected the nearly 6,100 framework legal documents that have been published in the official *Toplusu* digest starting with the first issue in July 1997 through the most recent issue in September 2004; (2) has converted all of these documents to image format; and (3) has converted most of these documents to text format, with the rest in progress; (4) has completed the codification process for 5 of the 17 currently effective Codes, with the 6^{th} and 7^{th} in progress; and (5) has entered the metadata for all documents that are in both text and image format.

The NCSC/Baku office has also completed a database analysis and design study, and is in the process of preparing a Request for Proposal (RFP) to have the software developed for creating, maintaining and updating the database in the ultimate workflow environment, and for

distributing the database in the production environment over the Internet and on CD-ROMs. Preparation of the database for distribution is also a function of the workflow environment.

The organization that will be responsible for operating the ultimate workflow and production environments is not yet determined. Nor are the physical locations of the ultimate workflow and production environments known. Until such time as the ultimate workflow environment is established, the NCSC/Baku office will continue to operate as the prototype workflow environment, to include the implementation of the software developed under the RFP.

Thus, the NCSC/Baku office will soon have completed the database contents for all retrospective framework legal documents published in *Toplusu* and for 7 codified Codes, together with their metadata records. Once this content is completed, the workflow activities will need to focus on adding to the database (1) each new (or prospective) framework legal document as it is issued, (2) each new codified Code (the 12 remaining Codes), (3) updates to each completed codified Code as they are amended by new framework legal documents, (4) updates to each framework document that has been amended by subsequent framework documents; and (5) a new metadata record for each new framework legal document and each new codified Code, and an updated metadata record for each updated codified Code.

Organization of the Report

The remainder of this report is in four sections. The first section contains a task analysis of the current workflow of the NCSC/Baku office. The second section provides a proposed model workflow task analysis with an accompanying flowchart for the ultimate workflow environment once the initial database content is completed. The third section outlines the knowledge and skills required to perform the tasks set forth in the proposed model workflow and the type of training that will be required to perform these tasks. The final section of this report provides information pertaining to the current research into human performance technology, with particular emphasis on the motivational and organizational factors that ultimately influence the sustainability of the ALPI project.

Current Workflow of the NCSC/Baku office

This section includes a description, purpose, and analysis of the workflow tasks currently being performed by the NCSC/Baku office in connection with entering documents and metadata into the prototype database. The tasks are listed in the general order that they are performed.

As noted previously, the current workflow activities can be characterized as being retrospective in that the objective is to enter all past framework legal documents and their corresponding metadata into the prototype database.

The NCSC/Baku office has a staff consisting of six people of whom three are primarily and directly tasked with entering documents and metadata into the prototype database. All three individuals have earned a college degree and two are lawyers. This level of education provides them with more than an adequate amount of knowledge and skills required to perform the tasks.

Task 1
Identify and record documents that are published in the *Azerbaijan Gazette*.

Description
Certain documents, such as laws, amendments to laws, Presidential orders and decrees, and Cabinet of Ministers resolutions and orders, contain a provision that they become effective when they are first published in the *Azerbaijan Gazette* (AG), a publication of the Milli Mejlis, the Parliament of Azerbaijan. Documents that require publication in the AG normally appear in the AG within two or three days following their enactment. The text of the documents often appears within the first three pages of the AG; however, to ensure accuracy of the review process, the complete text of the AG must be examined.

The AG is published 6 days per week, Tuesday through Sunday, and received by the NCSC/Baku office the day following its publication. The AG is also published in electronic format and can be accessed over the Internet at: http://azerbaijan.news.az/.

Purpose with respect to the ALPI Project
The majority of Azerbaijan's laws and Presidential decrees and orders become effective on the date they are first published in the AG. As such, the AG is a timely source for the enactment information (recorded in the ALPI database as "metadata" (data describing other data)) and text of these documents in electronic format.

Currently, the data recorded by the NCSC/Baku office staff includes:

- Title
- Issue Date
- AG Issue Number
- AG Date of Publication (the effective date of the document)

The data is recorded in an MS Excel spreadsheet sequentially numbered with a new sequence beginning each month.

Task Analysis
1. Obtain a copy of the AG.
2. Review the text of the AG.
   2.1. Identify laws
   2.2. Identify Presidential Orders
   2.3. Identify Presidential Decrees
   2.4. Identify Cabinet of Ministers Resolutions
   2.5. Identify Cabinet of Ministers Orders
3. Record the data, by typing, in the appropriate MS Excel column for each document identified.
   3.1. Record document Title
   3.2. Record document Issue Date
   3.3. Record AG Publication Number
   3.4. Record AG Date of Publication

Task 2
Digitize the legal framework documents that appear in the *Toplusu*.

Description
The NCSC/Baku office has acquired a complete and current set of the *Toplusu.* The *Toplusu* is published monthly by the President's Office and the AZ government regards it as the official record of Azerbaijan's laws, Presidential orders and decrees, and Cabinet of Ministers resolutions and orders. Documents (referred to as "Articles" in the *Toplusu*) are grouped under the three headings above and are numbered sequentially beginning with the end number of the previous month's volume. Page numbers are sequential. Each monthly volume also contains a table of contents for that month. In addition, each year begins a new numbering sequence for Articles and pagination.

Purpose with respect to the ALPI Project
Prior to their inclusion in the database system, the framework legal documents that appear in the *Toplusu* must be converted to digital format. The NCSC/Baku office has contracted with a third-party vendor to convert each volume of the *Toplusu* to both digital text and digital image format. Following receipt of the volume from the NCSC/Baku office, the vendor disassembles the volume. The text of each document contained in the volume is converted to digital text by manually typing it into a computer file and saving it in Microsoft Word format using a filename convention that has been determined by the NCSC/Baku office – for example, MM0692_DEK02_S2102_2103, in which MM refers to the type of file (text), DEK02 refers to December 2002, and S2102_2103 refers to the volume pages.

In addition, each page in the volume is scanned as a digital image file in JPEG format using a HP 7450 Scanner at 150 dpi, and saved again using a filename convention determined by the NCSC/Baku office – for example, N01_YAN00_S0001, in which N is the volume number, YAN is the month (in this case, January), 00 is the year, (2000), and S is the page number.

The third-party vendor also aggregates, by copying and pasting, the individual image files for each Article into one Microsoft Word document and saving it using a filename convention designated by the NCSC/Baku office – for example, SM0692_DEK02_S2102_2103, in which, SM refer to the type of file (image), DEK02 refers to December 2002, and S2102_2103 refers to the volume pages.

The computer files created during this process are placed into their respective folders (text files, single image files, and aggregated image files) and "burned" to a CD-ROM and delivered to the NCSC/Baku office, along with the *Toplusu* volume, which has been re-assembled.

Task Analysis
1. Receive *Toplusu* volume from NCSC/Baku office.
2. Disassemble volume.
3. Scan individual pages (JPEG format)
   3.1. Scan first page of volume
   3.2. Adjust settings for optimal clarity and resolution

3.3. Save settings
3.4. Scan remainder of pages
3.5. Assign file names using convention
3.6. Review each image for corrections and re-scan, if necessary
3.7. Compare images with actual volume text

4. Convert volume Articles to text
   4.1. Distribute volume pages to staff for transcribing
   4.2. Open MS Word software and new document
   4.3. Type and format text of Article
   4.4. Check for errors via spellchecker
   4.5. Save file in appropriate folder using designated filename convention
5. Aggregate individual page image files to a file of a complete Article
   5.1. Open MS Word software and new document
   5.2. Open individual image file of first page of Article
   5.3. Copy image to new document file using the Select/Copy/Paste tools in MS Word
   5.4. Repeat 5.2 and 5.3 for each page in the Article
   5.5. Save file in appropriate folder using designated filename convention
   5.6. Check against print volume for completeness
6. Reassembly of *Toplusu* volume
   6.1. Collect individual volume pages
   6.2. Assemble pages into correct sequential order
   6.3. Fasten volume pages together by gluing.
7. Transfer files to a blank CD-ROM
   7.1. Locate appropriate file folders on computer (text files, single image files, and aggregated image files)
   7.2. Copy folders to CD-ROM software
   7.3. Record ("burn") CD-ROM
   7.4. Test CD-ROM by opening folders on another computer
8. Deliver CD-ROM and *Toplusu* volume to NCSC/Baku office

Task 3

Conduct a "quality check" on *Toplusu* volume digitalization process.

Description

As the transcription of the *Toplusu* is a manual typing process, it is subject to human error with respect to the typist's skill and the resulting accuracy of the work product. As a result, a comparison is made between the transcribed text of a document and its image. The comparison process is applied to a random selection of 5% of the documents processed by the third-party vendor.

Purpose with respect to the ALPI Project

The reliability, integrity, and completeness of the ALPI database are directly related to the accuracy of the text documents in the database that represent the original framework legal documents. Although 100% accuracy is desirable, it is not often attainable. The NCSC/Baku office has set of a minimum of 99.9% or 1 error per 1000 keystrokes as the standard for accuracy.

Task Analysis

1. Copy contents of CD-ROM received from third-party vendor to respective directories on Workflow office network file server.
2. Verify completeness of text and image files (first staff member)
   2.1. Open directories on network server in multiple desktop windows
   2.2. Check text file list for correct beginning, ending and sequential Article numbers
   2.3. Check image file list for correct beginning, ending and sequential Article numbers
   2.4. Compare and match list of DOC text files names with list of DOC image files names
   2.5. Compare individual JPEG file list with DOC image file names using the page range information contained within the DOC image filename
3. Repeat Step 2 with second staff member
4. Verify accuracy of document text files
   4.1. Print randomly selected text and image files (5% of documents submitted by third-party vendor)
   4.2. Read aloud text of image document by first staff member as second staff member writes corrections to text
5. Return hand-written corrections to text files to third-party vendor for correction to DOC file
6. Third-party vendor provides new CD-ROM with corrected file

Task 4

Create a database record and enter metadata into fields

Description

The NCSC/Baku office has created a prototype database using MS Access software. Following the "quality check" of the *Toplusu* volume digitalization process work product for completeness and accuracy, metadata for each *Toplusu* document is entered into the Access database.

Purpose with respect to the ALPI Project

Developing a prototype database has enabled the NCSC/Baku office to gain critical insight into the structure and content required for the final production database. In addition, it has enabled the office to begin the process of collecting the required metadata. When the final production database system development is completed, this data must be ported over to the corresponding tables within the production database.

Task Analysis

1. Create a new record in Access
   1.1. Open Access program
   1.2. Open ALPI database
   1.3. Use the "last record" function to go to the next blank record in sequence
2. Insert hyperlinks to image and text DOC files
   2.1. Place cursor in image field
   2.2. Open "Insert Hyperlink" tool
   2.3. Browse for image file
   2.4. Click on "Open" to insert filename path in field
   2.5. Repeat Steps 2.1 – 2.4 for text file

3. Enter initial data into fields (first staff member)
    3.1. Click on hyperlink to open text file
    3.2. Enter Title data
        3.2.1. Identify the name of the Article in the document
        3.2.2. Highlight, copy and paste in Title field
    3.3. Enter Official Identification Number data
        3.3.1. Identify the official citation in the document
        3.3.2. Highlight, copy and paste in Official Citation field
    3.4. Enter Issuing Type data
        3.4.1. Review title of document to determine the type
        3.4.2. Use pull-down menu to enter type
        3.4.3. If type is not listed, click on Add New button to enter a new type
            3.4.3.1. Repeat 3.4.2 to enter Type
    3.5. Enter Issuing Organization data
        3.5.1. Review text to determine issuing organization
        3.5.2. Use pull-down menu to enter organization
        3.5.3. If organization is not listed, click on Add New button to enter a new organization
            3.5.3.1. Repeat 3.5.2 to enter Issuing Organization
    3.6. Enter Issue Date
        3.6.1. Review text (end of document) to determine the issue date
        3.6.2. Enter issue date in field using correct format
    3.7. Enter Effective Date
        3.7.1. Review text (end of document) to determine the effective date
        3.7.2. Enter the effective date in field using correct format
    3.8. Enter Publication data
        3.8.1. Review document to determine the publication
        3.8.2. Checkmark appropriate publication box
        3.8.3. Review document to determine publication date
        3.8.4. Enter data in Publication Date field
        3.8.5. Review document to determine volume number
        3.8.6. Enter data in Volume field
        3.8.7. Review document to determine number
        3.8.8. Enter data in Number field
    3.9. Enter Signature data
        3.9.1. Review document to determine who signed the document
        3.9.2. Use pull-down menu to enter Signature
        3.9.3. If name of signatory is not listed, click Add New button to enter a new signatory
            3.9.3.1. Repeat 3.9.2 to enter Signature
    3.10. Enter Editor Name data
        3.10.1. Use pull-down menu to enter name of person entering data
    3.11. Close Access program or Repeat from Step 1.3 to create a new record
4. Enter additional data into fields (second staff member)
    4.1. Open Access software
    4.2. Search for record
    4.3. Open text file using hyperlink
    4.4. Enter Classification data

4.4.1. Review Title of document
4.4.2. Review text of document
4.4.3. Determine classification(s)
4.4.4. Use pull-down menu to enter Classification data in field (multiple classifications permitted using the control key)

4.5. Enter Related Documents data
4.5.1. Review text of document
4.5.2. Identify related documents in text of document
4.5.3. Place cursor in Related Document field
4.5.4. Open "Insert Hyperlink" tool
4.5.5. Browse for document file on network server
4.5.6. Click on "Open" to insert filename path in field
4.5.7. Repeat Steps 4.5.2 – 4.5.6 for additional related documents

4.6. Close Access software or repeat from Step 4.2 for additional documents

5. Conduct a "quality check" for accuracy of data entry (supervisor)
5.1. Open Access software
5.2. Search for record
5.3. Open document text file using hyperlink
5.4. Open document image file using hyperlink
5.5. Review text and image files and compare with metadata entries
5.6. Revise as required
5.7. Repeat Steps 5.2 – 5.6 for additional records or close Access software

Task 5
Create a Code

Description
The framework legal documents of the Government of Azerbaijan currently contain 17 codes. Fifteen of the original adoption of the Codes were published in the *Toplusu.*

Purpose with respect to the ALPI Project
One of the components of the ALPI project is to have a complete, current copy of the 17 Codes in text format. The laws that adopted the original Codes and subsequent amendments are converted to digital format by a third-party vendor. (See Task Analysis: *Digitize the legal framework documents that appear in the Toplusu.*) In addition to creating a database record for the framework legal document that adopts a Code, a database metadata record is created for each Code.

Task Analysis (Assumes that all framework documents records relating to a Code have been added to the database)

1. Create a Code in MS Word (A database record for a Code is not created)
1.1. Using third-party resources, such as private databases, research the *Toplusu* year and volume in which the original adopting law was published
1.2. Open Access program
1.3. Open ALPI database
1.4. Search for record for *Toplusu* Article based on research in Step 1.1.

1.5. Open text of Article document
1.6. Open New Document in MS Word
1.7. Copy and paste text of adopting law into the new MS Word document
1.8. In the new document, delete the "adoption" portion of the law, leaving only the Code.
1.9. Using the Table of Contents tool in MS Word, create a table of contents at the beginning of the Code for each Code chapter and a reference to source documents.
1.10. Create a list of *Toplusu* source documents at the end of the Code
1.10.1. Copy data from the database record of the original adopting framework document to the top of the List of Source Documents
1.10.1.1. Issue Date
1.10.1.2. Official ID (Citation)
1.10.1.3. Title
1.10.1.4. Original publication
1.10.1.5. Date of Publication
1.10.1.6. *Toplusu* Citation
1.10.1.7. Create a hyperlink to the MS Word file containing the text of the source document
1.10.2. Copy data from the database records of all subsequent amendments to the original adopting framework document to the List of Source Documents
1.10.2.1. Research latest *Toplusu* source document that amends the Code
1.10.2.2. Review and note all previous amendments to Code
1.10.2.3. Search for and open source document for first amendment to the Code
1.10.2.4. Copy the data from the source document to create the first item in list of amendments to the original framework document (See Step 1.10.1)
1.10.2.5. Create a hyperlink to the MS Word file containing the text of the amending source document
1.10.2.6. Repeat Steps 1.10.2.3 and 1.10.2.5 for each subsequent amendment
1.10.3. Create a hyperlink at the end of the Table of Contents to the List of Source Documents
1.10.4. Close MS Word file containing Code

Task 6
Update (codify) a Code

Description
Codes are periodically modified through the enactment of subsequent laws. Both the President's Office and the MoJ maintain a codification process of updating the Codes via a manual process. When a law amends a Code, a photocopy is made of the law and the language in the specific new provision is cut out and pasted over the previous provision in a copy of the *Toplusu* maintained for this purpose. In addition, the Official ID and Issue Date are written on the back of the slip of paper containing the new language.

Purpose with respect to the ALPI Project
In order to create and maintain a complete and current copy of Azerbaijan's Codes and other framework legal documents that have also been amended, the original text of the documents must be revised to reflect changes made by subsequent framework documents.

Task Analysis

1. Open record
2. Open document text file
3. Review text to determine Codes that require updating
4. Open text file of Code
5. Revise text of Code in accordance with and conforming to the amending document
6. Add an Endnote to the Code consisting of the amending document's:
   6.1. Issue Date
   6.2. Official ID (Citation)
   6.3. Title
   6.4. Text that was deleted from Code (formatted with strikethrough) or text that was added
   6.5. Hypertext link to text file of the amending document

Proposed ALPI Workflow Model

Task Analysis

This section sets forth the workflow activities that will be required in the ultimate workflow environment once the initial database content is completed. These future workflow activities are based on a "model" workflow environment, as the organization that will be responsible for operating the ultimate workflow environment and its physical location are not yet known. The "model" workflow activities, obviously, will need to be modified, as necessary, once the ultimate workflow environment is established.

The Workflow Model assumes the following:

- All framework legal documents (*Toplusu*, *Bullitini*) have been entered into the database system.
- All codification and updating of Codes and other framework documents has been completed.
- The database is up-to-date and at a "move forward" status.

The Workflow Model tasks are listed in the order that they are to be performed.

1. Receive photocopy of document from MoJ and create a database record (Staff #1)
   1.1. Stamp document as "Received" with date
   1.2. Stamp document with next sequential number using numbering machine
   1.3. Open CMS program
   1.4. Choose ADD A RECORD
   1.5. Review document to determine Official ID
   1.6. Enter Official ID (Citation)
   1.7. Save and close record
   1.8. Hand document to Supervisor
2. Determine the Effective Date (Supervisor)
   2.1. Receive document from Staff #1
   2.2. Review document to determine Official ID
   2.3. Retrieve database record using Official ID

2.4. Open record
2.5. Check Official ID data against document
2.6. Review document to determine effective date
2.7. IF DATE IS CERTAIN, THEN
    2.7.1. Enter date in Effective Date field
2.8. IF DATE IS DATE OF PUBLICATION, THEN
    2.8.1. Leave date blank
2.9. Close record
2.10. Return document to Staff #1

3. Scan document (Staff #1)
    3.1. Scan document to create an image file of each page
    3.2. Name each file using designated convention
    3.3. Save files in designated directory
    3.4. Upload image files to record
        3.4.1. Open database program
        3.4.2. Retrieve record
        3.4.3. Choose ATTACH IMAGE FILES
        3.4.4. Browse for image files (multiple selection)
        3.4.5. Choose OPEN to upload reference to image files
    3.5. Open image files from record to check
4. IF EFFECTIVE DATE FIELD CONTAINS A DATE, Convert document image to text
    4.1. Open text editor
    4.2. Transcribe text from document by typing
    4.3. Save and close record
5. Place document in binder in sequential order by date, then by sequence number
6. IF EFFECTIVE DATE FIELD IS BLANK, skip Step 4, and close record. (Staff #1)
7. Check document text for errors (Requires Staff #1 and Staff #2)
    7.1. Open record (Staff #1)
    7.2. Open image file
    7.3. Open record (Staff #2)
    7.4. Open text file
    7.5. Staff #1 (other than original transcriber) reads image text aloud to Staff #2
    7.6. Staff #2 compares read-aloud text to document text
    7.7. Correct text file as required (Staff #2)
    7.8. Save and close record (Staff #1)
8. Go to AZ Gazette to copy text from Web site (Staff #2)
    8.1. Open Web browser
    8.2. Enter Web address: http://azerbaijan.news.az/
    8.3. Find notice of document publication,
    8.4. IF FOUND:
        8.4.1. Open text editor
        8.4.2. Copy text of document
        8.4.3. Paste text in text editor
        8.4.4. Save and close record
    8.5. IF NOT FOUND:
        8.5.1. Close record

8.5.2. Repeat next day until FOUND
8.5.3. WHEN FOUND, go to Step 4.4.1.

9. Enter basic data into fields (Staff #2)
   9.1. Open text file
   9.2. Enter Title data
      9.2.1. Identify the name of the Article in the document
      9.2.2. Highlight, copy and paste in Title field
   9.3. Enter Official Identification Number data
      9.3.1. Identify the official citation in the document
      9.3.2. Highlight, copy and paste in Official Citation field
   9.4. Enter Issuing Type data
      9.4.1. Review title of document to determine the type
      9.4.2. Use pull-down menu to enter type
      9.4.3. If type is not listed, request a new type to be added by supervisor
   9.5. Enter Issuing Organization data
      9.5.1. Review text to determine issuing organization
      9.5.2. Use pull-down menu to enter organization
      9.5.3. If organization is not listed, request that supervisor add new organization
   9.6. Enter Issue Date
      9.6.1. Review text (end of document) to determine the issue date
      9.6.2. Enter issue date in field using correct format
   9.7. Enter Effective Date (Should already be entered)
      9.7.1. Review text (end of document) to determine the effective date
      9.7.2. Enter the effective date in field using correct format
   9.8. Enter Publication data
      9.8.1. Review document to determine the publication
      9.8.2. Checkmark appropriate publication box
      9.8.3. Review document to determine publication date
      9.8.4. Enter data in Publication Date field
      9.8.5. Review document to determine volume number
      9.8.6. Enter data in Volume field
      9.8.7. Review document to determine number
      9.8.8. Enter data in Number field
   9.9. Enter Signature data
      9.9.1. Review document to determine who signed the document
      9.9.2. Use pull-down menu to enter Signature
      9.9.3. If name of signatory is not listed, request supervisor to add a new signatory
         9.9.3.1. Repeat 6.10.2 to enter Signature
   9.10. Enter Editor Name data
      9.10.1. Use pull-down menu to enter name of person entering data
   9.11. Close record
10. Enter additional data into fields (Staff #3)
   10.1. Open record
   10.2. Conduct a quality check on previously entered metadata
   10.3. Open text file
   10.4. Enter Classification data

10.4.1. Review Title of document
10.4.2. Review text of document
10.4.3. Determine classification(s)
10.4.4. Use pull-down menu to enter Classification data in field (multiple classifications permitted using the control key)

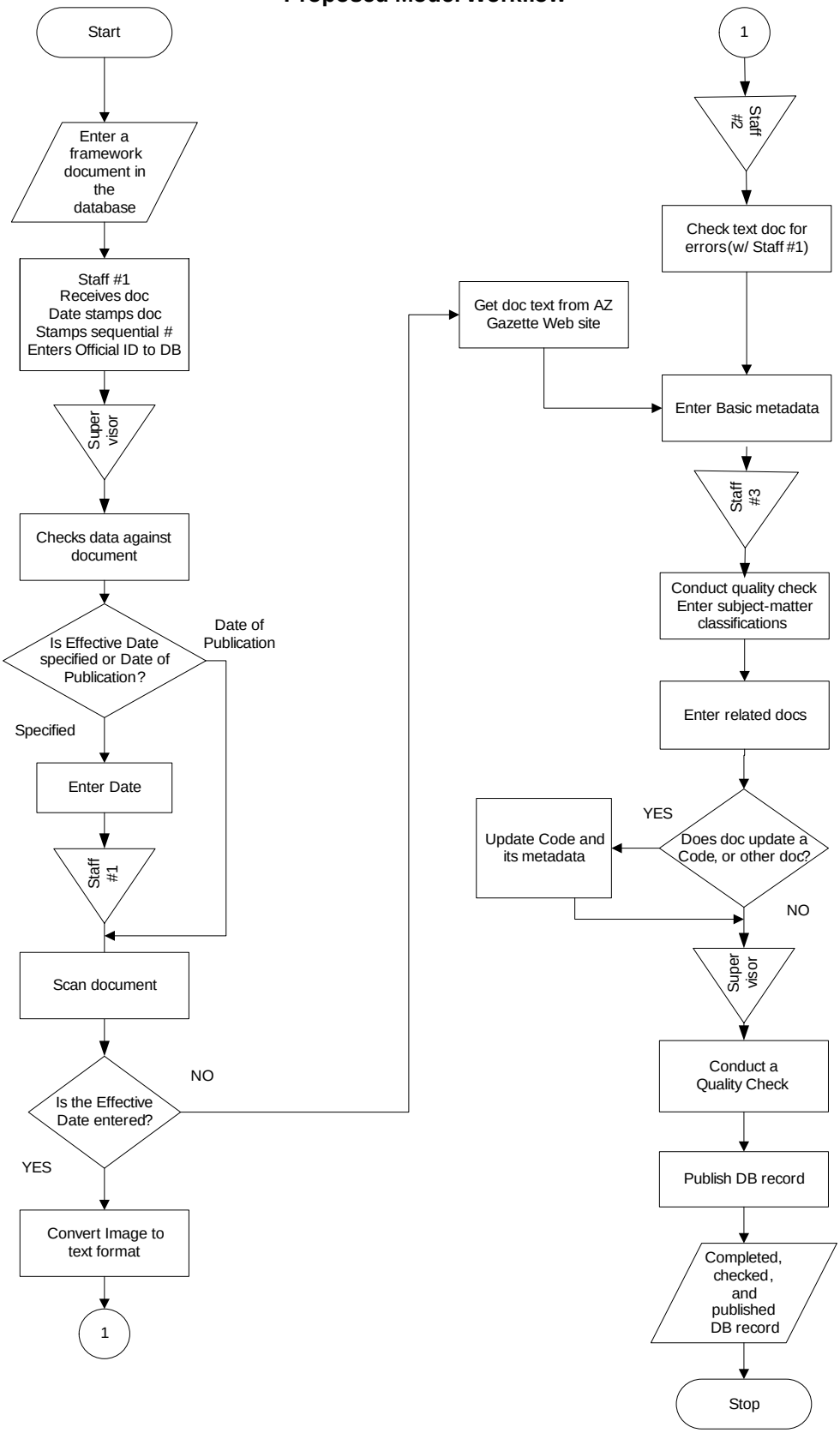
10.5. Enter Related Documents data
10.5.1. Review text of document
10.5.2. Identify related document in text of document
10.5.3. Place cursor in Related Document field
10.5.4. Open “Insert Related Document” tool
10.5.5. Search for document record
10.5.6. Click on “ATTACH” to insert related document in field
10.5.7. Repeat Steps 7.4.2 – 7.4.6 for additional related documents

11. Determine if document updates a Code or other document
11.1. IF NO, THEN:
11.1.1. Close record
11.2. IF YES, THEN;
11.2.1. Update Code and its metadata
11.2.2. Close record

12. Conduct a “quality check” for accuracy of data entry (Supervisor)
12.1. Open record
12.2. Open document text file
12.3. Open document image file
12.4. Review text and image files and compare with metadata entries
12.5. Revise as required
12.6. Close record

13. Publish record to production database server

ALPI Project
Proposed Model Workflow



Sustaining the ALPI Project[1]

The objective of the ALPI Project is to achieve improved access to the governing laws and regulations of Azerbaijan on a sustainable basis by providing the text of these documents, and a means to find and retrieve these documents via a database system.

The government of the Republic of Azerbaijan (GoAZ) will be responsible ultimately for sustaining the database. The National Center for State Courts (NCSC), under contract to the United States Agency for International development (USAID), is responsible for providing the necessary assistance to the GoAZ to achieve the ALPI Project's objective.

As the objective of this report is to document the workflow activities required for maintaining the Azerbaijan Legal Database (the "database") in the ultimate workflow and production environment, these activities primarily focus on the content that comprise the database and on the technology to update and distribute the database. However, the sustainability of the project, once it is handed over to the ultimate GoAZ agency, will depend on additional factors.

Current performance research identifies three critical ingredients that influence human performance and the achievement of overall organizational objectives: our knowledge, our motivation and the organizational environment in which we work.

A performance or work goal is a description of the tasks or objectives that individuals and teams must accomplish according to specific deadlines and criteria. In addition, to be effective, performance goals must align with the overall goals of the organization. Too many organizations fail to align high-level organizational goals with team or individual work goals in which alignment is essential for performance improvement. Furthermore, performance goals, to be implemented successfully, must meet three criteria in that they must be: concrete (clear and measurable), challenging (difficult but doable), and current (to be accomplished within a reasonably short time frame).

In this instance, the overall organizational goal is that ***the ultimate GoAZ agency responsible for the ALPI project will sustain the database system such that the governing laws and regulations of Azerbaijan will be maintained on a current, complete, and accurate (to 99.9%) basis and will be accessible to the public 24 hours-a-day via the Internet and on CD-ROM.***

This report identifies four personnel positions, each with their own set of performance goals. The achievement of the individual performance goals of the personnel maintaining the ALPI database system will depend on the knowledge and skills they bring to the work, their motivation to achieve the goal, and the culture and organizational barriers that impede the achievement of the goal. In other words, every person involved in the overall organizational goal must have adequate knowledge, motivation, and organizational support, all in place and aligned with each other, to achieve performance goals.

[1] This section of the report draws upon the work of Richard E. Clark and Fred Estes (2002). *Turning Research into Results: A Guide to Selecting the Right Performance Solutions.* Atlanta, GA: CEP Press.

Knowledge and Skills

The table that follows outlines the knowledge and skills required to perform the tasks set forth in the proposed Workflow Model. In the event that the personnel assigned to these tasks do not have the knowledge and skills required to perform the tasks, the type of training required to perform these tasks is described.

The Workflow Model identifies four levels of knowledge and skills required to successfully perform the workflow tasks. Each level is listed in ascending order, from Staff #1 through #3, and includes a Supervisor. Each ascending level subsumes the skills of the lower level. Based on the volume of documents to be processed, the skill levels may be combined, resulting in fewer required personnel, or expanded to accommodate more than one person performing the tasks at any given level.

Level	Knowledge & Skills	Training[2]
Staff #1	• General clerical skills, including use of office equipment and accurate typing • General computer skills • Use of a scanner (HP 7450) • Use of the ALPI file naming conventions • Use of the content management system (CMS) to enter basic data and upload files	• Factual and conceptual knowledge of databases and content management systems • Procedural knowledge: o Required office equipment o General computer hardware and software o The ALPI CMS
Staff #2	• Capabilities of Staff #1 • General knowledge of the format and contents of AZ's framework legal documents • Use of the content management system to enter metadata using menus, pop-ups, etc.	• Same as Staff #1 • Factual and conceptual knowledge of the AZ legal system and its framework documents • Procedural knowledge of the CMS

[2] The material outlined in the training component draws upon the work of Lorin W. Anderson and David R. Krathwohl (Eds.) (2001) *A Taxonomy for Learning, Teaching, and Assessing.* New York: Addison Wesley Longman

Staff #3	• Capabilities of Staff #2 • Advanced knowledge of AZ's legal system and framework legal documents, including document classifications and identification of documents that enact, adopt, implement, and amend other documents • Advanced knowledge of AZ's codes • Advanced use of text editor (e.g. MS Word) for updating (codifying) codes	• Same as Staff #2 • Advanced factual and conceptual knowledge required by the current manual workflow processes, including classifications and content of framework legal documents • Procedural knowledge of advanced features of the CMS text editor • Metacognitive knowledge (knowledge and awareness of one's own thought and thinking; self-awareness; self-reflection) and skills of strategic decisions regarding structuring of knowledge to codify codes and framework documents; knowledge about cognitive tasks including appropriate contextual and conditional knowledge required for decision-making
Supervisor	• Capabilities of Staff #3 • Advanced use of content management system's publishing and administrative functions, such as user access, entry tracking, report generation, etc. • Human resource management	• Same as Staff #3 • Procedural knowledge of publishing and administrative features of CMS • Metacognitive knowledge of o Personal strengths and weaknesses with respect to error checking and approving of database records for publication to the production server for Public User access o Strategic knowledge of evaluating the content of database records using heuristic methods o Personal strengths and weakness with respect to supervision of others

Knowledge and skill enhancement are required when people do not know how to accomplish their performance goals and usually indicates the need for information, job aids, and training. Each provide different benefits and are used in different situations. The preceding chart outlines the knowledge and skills required to perform the various tasks of maintaining the ALPI database

system. Information that various personnel need to know include: factual knowledge of the Azerbaijan legal system and its framework legal documents; specific knowledge of the current manual workflow processes, classification system, and contents of the framework legal documents; and a general conceptual overview of databases and content management systems. Instruction in this type of knowledge is conducted through presentation of material, multiple examples, and assessment.

Job aids are at a higher level of information and contain self-help information that can be used on the job, often in the form of checklists or other easily retrievable media. These tools are effective when people have completed training and require reminders about what they have learned. It is recommended that job aids be provided to ALPI personnel on topics such as: the use of the specific features of the content management system, use of office equipment required in the workflow processes, and information on the completion of critical metadata fields in the database. Job aids can take the form of either printed material distributed to each Workflow User, or content available electronically within the content management system through a "Help" feature.

Training is a specific term for when people must acquire procedural or "how to" knowledge and skills. Training is information *plus* guided practice and corrective feedback. Adequate training is critical for the ALPI personnel, in that the achievement of their performance goals of maintaining the database system on a current, complete, and accurate basis depends on the quality of the training they receive on all aspects of the project, including the use of the content management system.

The most recent research on instructional design for training identifies six steps that should be followed sequentially in each training lesson: [3] (1) Articulate the goals of the lesson through the use of verbs, such as "You will learn to…;" (2) Establish the value and the reason for the lesson and the consequences for not learning; (3) Teach information that is needed to perform the task or procedure; (4) Demonstrate the procedure using a "worked example" in an authentic setting; (5) Practice using incomplete problems; and (6) Provide feedback that is focused on developing better strategies for solving problems. In addition, the sequence of training should follow the sequence of the tasks to be performed in the authentic environment. During the development of the training for the ALPI project, the information gathered from the cognitive task analysis represented by the sequence of tasks of the current workflow of the NCSC/Baku office should be incorporated into the training.

It should be noted, however, that certain novel and unexpected problems that the personnel responsible for the ALPI database will encounter can only be handled through education, which provides people with solid, but general, conceptual and analytical knowledge. As such, the education level required for the more advanced performance tasks to maintain the ALPI database system should be considered as part of the qualifications of those responsible for these tasks.

[3] Richard E. Clark (2005). *Guided Experiential Learning: Training Design and Evaluation.* (unpublished manuscript).

Motivational and Organizational Factors[4]

As human beings, we are comprised of two distinct psychological systems. Whereas knowledge informs us of how to accomplish tasks, motivation is what keeps us on task. Motivation influences three critical aspects of performance: (a) choosing to work toward a goal; (b) persisting at working toward a goal; and (c) investing mental effort toward achieving a goal. Active choice is intention to do something transformed into action. Persistence is pursuing a task in the face of distractions. Mental effort is tied to confidence and is sometimes described as the amount of work invested in a task.

Motivation, most important, is a result of the beliefs we have about ourselves. Current research has concluded that the primary motivation of humans is the desire to "be effective" in our own lives. In a work environment, our motivation becomes a matter of whether the organizational structure and resources are conducive to being personally effective.

There are four factors that influence work goal choice, persistence, and mental effort:

1. Personal and team confidence;
2. Beliefs about the organization and barriers to achieving both individual and team performance goals;
3. The emotional climate of the work environment;
4. The value that individuals and the team places on the performance goals.

Each is discussed briefly in the context of the ALPI project.

Personal and team confidence. Personal confidence is people's belief about their own ability to achieve specific performance goals. As personal confidence increases, commitment to performance goals also increases. Team confidence is the belief that colleagues collectively possess the skills required to achieve performance goals, and that they can cooperate and collaborate enough to accomplish team goals.

Within the ALPI project, personal confidence can be built by:

- Providing individuals with performance goals that are clear, concrete, and challenging;
- Supplying individuals with information, job aids, and training they need to achieve their performance goals;
- Providing training feedback focused on the use of strategies, instead of personal inadequacies or mistakes.

Team confidence can be built by:

- Providing the ALPI project team with an overview of the skills required to meet the team's performance goal and highlight each individual's contribution to the pool of knowledge and skills required to meet the goals;
- Providing the ALPI team with monitoring and performance feedback.

[4] This section of the report draws upon the work of Richard E. Clark and Fred Estes (2002). *Turning Research into Results: A Guide to Selecting the Right Performance Solutions.* Atlanta, GA: CEP Press.

Beliefs about the organization. People will commit to achieving performance goals when they perceive that the organization supports them. Organizational support can be provided to the ALPI team by:

- Ensuring that no organizational barriers exist to performing workflow tasks, such as faulty or missing work processes, procedures, and a lack of tools;
- Providing adequate work facilities.

The emotional climate of the work environment. People's commitment to performing their work increases as they realize the value and benefits of achieving work goals. The following methods are suggested to maintain a positive emotional climate within the ALPI workflow environment:

- Suggesting that connections be made between the ALPI project's goals and individual interests, such as acquiring a new skill, mastering a new area, or gaining a manager's attention;
- Suggesting that connections be made between performance goals and individual ability and allow for opportunities for individuals to show off their skills.

The value the individual and team places on the performance goals. Most individuals perform work tasks because they want the benefits that come with the completion of the task. It is suggested that the ALPI workflow team be further motivated by providing them with tangible incentives, such as vacations or gifts, when performance levels are met or exceeded. Research shows that the most effective tangible incentives are, in descending order:

1. Quota methods that offer bonus incentives for work that exceeds a previous level
2. Piece-rate methods in which output is tied to a rate of pay
3. Tournament methods in which performance rankings are based on competition
4. Flat-rate methods, which are the least effective, in which individuals are compensated at a set salary for a set time per week, usually the 40-hour work week.

The aforementioned suggestions for these motivational approaches do not cost very much, and they contribute to fostering a workflow environment conducive to increasing individual and team confidence, a collaborative spirit, and positive emotions and value about work. The benefit of creating a highly motivated organization is that the individual workflow users within the ALPI project will be proactively engaged with the work, with increased persistence and mental effort.

Individuals and teams, however, do not work in a vacuum. They work within an organizational culture that either contributes or erodes work performance. Culture can be described as the values, beliefs, goals, and emotions shared among people. Another characteristic of culture is that it is most often implicit, unconscious, and automated. Within organizations it is often expressed as "the way things are" and "That's how it is done here."

Performance problems occur when organizational goals conflict with the organizational culture. The opposite is also true: An organization's goals are achieved when both the culture and goals are aligned. Most often, it is difficult, if not impossible, to change an organization's goals as they are predetermined and set by others.

The goal of the ALPI project has been determined as sustainable maintenance of the database. In addition, an organizational culture already exists within the GoAZ and, most likely, the ultimate

entity that will implement the ALPI project. This is because there already exists a workflow processes within a GoAZ entity (the Ministry of Justice) that manually maintains an updated record of Azerbaijan's framework legal documents and codifies Codes and other framework document, and this entity becomes the primarily candidate to maintain the ALPI database.

As such, resistance to change could originate from two sources. First, the individuals working within this system may resist changing the current workflow environment. Second, other GoAZ organizations may not lend the degree of support and cooperation necessary to achieve the overall organizational goal.

Research shows that organizational change is more likely to succeed when people are equipped to handle the challenge. The recommended support necessary for this change is the following:

1. Provide the ALPI team with a clear vision, goals, and methods to measure the progress toward achieving the goals.
2. Align the organization's structures, processes, and resources with its goals. In this instance, the achievement of the ALPI project goals is determined, to a certain extent, by the cooperation, processes and resources provided by other GoAZ organizations other than the office responsible for the workflow process. Officials within these other organizations should be approached as stakeholders in the ALPI project, and their input and suggestions for achieving the project's goals should be solicited in the early stages of the project. Ongoing participation in key decisions is critical, as are invitations to opening ceremonies and other milestone events.
3. Top management must be continually involved in the ALPI project. The higher the level of participation, the more visibility, and corresponding commitment to achieving the project's goals will be achieved.
4. Provide adequate knowledge, skills, and motivational support for all individuals involved in the maintaining the ALPI project.

The result will be a sustainable process of maintaining the ALPI database on a current and complete basis.

Assessing Progress and Results[5]

The only way to know if progress towards organizational goals is being achieved is to evaluate the results of the activities involved in the processes. It is one of most cost-effective measures that can be taken to ensure success in human performance.

For the ALPI project, there are relatively simple, cost-effective, and research-based approaches to performance evaluation that can lead to positive feedback focused on strategies, not mistakes, and that can, when used frequently, ensure the sustainability of the project. Beginning with the initial ALPI project training activities and continuing through the subsequent workflow processes, the following four levels of evaluation can be used:

[5] Based on Don Kirkpatrick (1998). *Evaluating Training Programs: The Four Levels.* San Francisco: Barrett-Koehler Publishers.

Level 1: Reactions	Ask ALPI team members whether they like and value the program. Anonymous responses are most reliable and open-ended questions provide valuable, albeit unexpected, responses.
Level 2: Impact During the Program	Is the training program effective? Direct observation of training participants as they practice skills being learned is the best method of evaluation.
Level 3: Transfer	Does the program continue to be effective after implementation? It is essential to track the effect of the training of ALPI team members on an ongoing basis to determine whether they are applying the training to real-life issues encountered in maintaining the ALPI database. The most valuable transfer information is from managers and supervisors who observe the daily work.
Level 4: Bottom Line	Is the ALPI database being maintained on a current and complete basis? The reliability of the responses to this question is increased by using multiple measures to assess achievement of the organizational goals. Suggestions for these measures include: 1. Maintaining accurate data with respect to errors made in data entry, document conversion, and other workflow processes; 2. Apply independent error-checking of metadata and document text on a periodic basis using meaningful samples of at least 5% of the documents processed with a minimum accuracy level of 99.9% or 1 error per 1000 keystrokes as a standard; 3. Incorporate a method on the ALPI database Web site for Public Users to provide feedback on usability and to report data and text errors or anomalies.

Conclusion

This report has documented the workflow activities currently underway at the NCSC/Baku office using behavioral and cognitive task analysis methods. Based on these analyses and certain "moving forward" assumptions, a Workflow Model has been proposed to implement the ALPI database in its ultimate workflow environment. The level of knowledge and skills required by the ALPI project personnel have been identified, and training that corresponds to these requirements has been recommended.

In addition to training for knowledge and skills, this report also recommends that motivational and organizational factors be addressed during the planning, development, and implementation stages of the project to ensure the sustainability of a current, complete, and accurate ALPI database.

In addition, this report recommends that a system for evaluation be established to assess whether, in fact, there is sustainability of the achieved organizational goals.

ATTACHMENT IV

Current Workflow Activities within the MoJ

There are two (2) separate departments on different floors within the MoJ that process framework legal documents: (1) one for processing all of the upper level framework documents; and (2) one for processing all Ministerial Regulations registered as normative acts with the MoJ. For convenience, in this document, the upper level framework documents group will be referred to as the Toplusu Group, and the lower level group the Bullitini Group.

The Toplusu *Group*, located on the 4th floor, employs 15 people. It is headed by a "Chief" and a "Deputy Chief" (Adil). The rest of the employees are so-called legal experts, metadata entry personnel, codifiers, a librarian, and various assistants. The metadata entry personnel and the codifiers are part of one general department – indeed, one person heads this department and does all of the substantive work. The Chief, Deputy Chief, and the legal experts have PC's on their desks. The PC's are connected to a local area network (the server is also on the same floor). There is no IT specialist on the floor to maintain the network or the PCs.

The Bullitini Group, located on the 3rd floor, employs 3 people – a Chief, and 2 assistants; all 3 are located together in two connecting rooms. Emil and I have a different recollections as to whether there are PCs in the two-room suite – I say yes, Emil says no.

Toplusu Group Workflow

The framework documents that are submitted to the MoJ in its capacity as the official repository are initially received by a MoJ department that is not part of the Toplusu Group. This department date stamps and affixes an internal Registration Number to each original document that it receives, and then sends each stamped and registered original document to the Toplusu Group for processing.

Each original document is first submitted to the Chief, who briefly reviews it to determine whether it is significant enough to require analysis by a legal expert. If it is, the Chief assigns the document to the appropriate legal expert by affixing a note to the front of the original document. The legal expert then makes a copy of the original document and submits the original to the Head of the General Department within the Toplusu Group that processes the documents. If the Chief does not assign the document to a legal expert, then the original goes immediately to the Head of the General Department.

The General Department manually inserts an internal departmental registry number on the front of the original and date stamps it. Copies are then made and the original is submitted to the librarian for storage. Thus, each original copy received by the MoJ has two stamps on it – one by the initial department receiving it within the MoJ, and the second by the Toplusu Group General Department.

The first activity of the General Department, after the copies are made, is to log in each document. For this purpose, the Department maintains six (6) separate log books: (1) for laws enacted by Parliament, (2) for decrees issued by the President, (3) for orders issued by the President, (4) for resolutions issued by the Cabinet of Ministers and for orders issued by the Cabinet of Ministers, (5) for decisions of the Constitutional Court and for resolutions issued by Parliament, and (6) for decisions issued by the Plenum Supreme Court and documents issued by the State Committee for Securities. Only the documents that are represented in log books 1

through 4 are published eventually in the monthly official *Toplusu* digest. Nevertheless, all six log book categories of documents are filed with MoJ, and our Content Management System will need to accommodate them – by adding "decisions" to the *Type* field, and by adding "Constitutional Court", "Supreme Court", and "State Committee for Securities" to the *Issuing Organi*zation field.

Each log book has four columns for the manual entry of the following data about each document: Toplusu Group internal number (first column); official identification number, issue date, and receipt date by the General Department (second column, with each item on a separate row); Title (third column); and data entry personnel initials (fourth column).

The General Department also creates manually an index card for each document. The card contains the document's title (cut and pasted from one of the copies), its official identification number (written in by hand), and its issue date (written in by hand). In the upper right-hand corner, the subject-matter classification category number for the document is entered (written in by hand). Multiple index cards are created for documents having multiple subject-matter classifications categories – one per category.

The classification system employed by the General Department uses all three levels of classification categories – the main categories (45), the sub-categories within the main categories (452), and the sub-sub-categories within the sub-categories (604). The database system design will need to incorporate all three levels (1101 total categories) into the Content Management System. Only the 45 main categories, however, are necessary, at least initially, for Public User access. It should also be noted that the Title of each document as it appears on the document indicates it *Type* and *Issuing Organization*. Once the card catalog is completed the General Department files it in a card catalog filing system in a different room, with the cards organized by subject classification numbers.

The General Department also does the codification work on amended Codes and on amended framework documents. For this purpose, the originally adopted Code (in books) and the originally adopted framework documents are used as the base document – these are all maintained in the library. The amendments to them are literally cut out of one copy of the amending document and pasted into the amended document, with the amending document's official identification number and issue date hand-written on the back of the cut in paper. Deletions in the base document are shown by a cross-out. In addition, framework documents in the library that amend other documents also have a cross-reference added at the top (hand written) to indicate the document or Code that it has amended.

The card catalog system for finding documents and the original copies maintained in the library (including the base documents with their manually cut and pasted amendments, and their deletions crossed out) are accessible to other departments within the MoJ.

The General Department undertakes one other major activity. It periodically compiles a digest that summarizes all documents that have been processed by the Toplusu Group since publication of the last digest. Clerical personnel prepare the digest using the data contained in the log books. For the more important documents – those identified initially by the Chief of the department and assigned to an expert – the expert prepares a synopsis on a PC and provides the file containing the synopsis to the clerical personnel creating the digest. The clerical personnel incorporate the synopsis into the digest at its appropriate place, and then prints out multiple copies of the compilation for distribution to designated departments within the MoJ.

A schematic showing the workflow within the Toplusu Group is attached.

Bullitini Group Workflow

This department only processes Ministerial Regulations that are normative acts. By law, these documents must be registered with the MoJ before they can become effective. Very few Ministerial documents, however, are registered with the MoJ – although the reason for this is not known, the assumption is that the Ministries do not treat most of the documents that they issue as "normative acts" technically.

There is a formal process for registering those Ministerial Regulations that are filed with the MoJ. The Bullitini Group manages this process. The end result of the process is an official signing of three original copies of the document by the Minister of Justice.

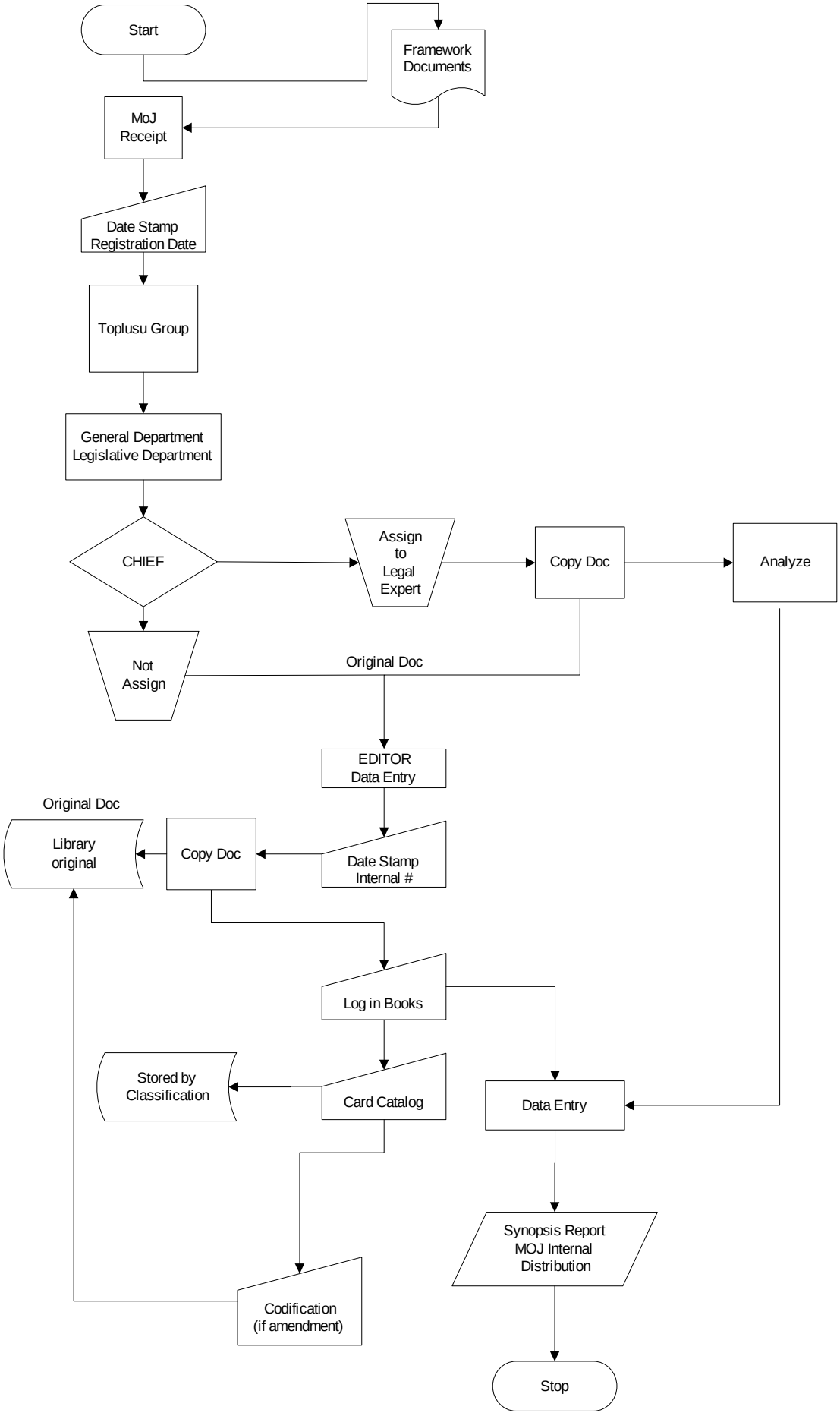
Once the document is officially registered, one of the original copies is processed by the Bullitini Group for recording, classification, filing, and publication in the *Bullitini*. These activities are the subject of the ALPI Project database system. All substantive activities are handled by the Chief of the Bullitini Group..

The activities are as follows: First, metadata about each document is manually entered into a 4 column log book. The metadata includes for each document: Bullitini Group's internal sequential number (column 1); Registration Date, and the Registration Number (column 2, on separate lines); Title (Column 4); and initials (column 4).

The second step is to classify the document. A separate 5 column log book is maintained for each classification category. At present, the Bullitini Group is using 80 separate subject-matter classification categories – in other words, it has 80 separate classification log books. The metadata about each document that is entered manually into the appropriate classification log book is: Bullitini Group's internal sequential number (column 1); Registration Date, and the Registration Number (column 2, on separate lines); Classification number (column 3); Title (column 4); and notes, such as whether the document amends an earlier document (column 5).

The various log books, and the original documents are maintained in the Bullitini Group's two-room suite. Clerical personnel transcribe each document, using MS Word, to produce a text file of each document. The text file goes through an error detection and correction process within the Group. The corrected text file is then provided to the organization responsible for printing the monthly *Bullitini* digest – some issues combine two months of documents because of the low volume of Ministerial normative acts registered with the MoJ. Before release of the *Bullitini* digest, a further check is done on the accuracy of the data, with follow-up error correction if necessary by the printer. Transcribing of text files within the Group began in January 2002, according to the Chief of the Bullitini Group.

MOJ Workflow (Toplusu Documents)



ATTACHMENT V

AZERBAIJAN LEGAL DATABASE (ALPI) PROJECT

REQUEST FOR PROPOSALS

Software Applications for Database Management, for Content Management, and for Accessing the Database over the Internet and on CD-ROMs

National Center for State Courts

under contract to

The United States Agency for International Development

Prepared by: Charles E. Shapiro, Chief of Party

610-611, Jaffar Jabbarli Street
Caspian Plaza Business Center
Azerbaijan 1065, Baku
Tel: (994-12) 436-8550
Fax: (994-12) 436-8551
Cell: (994-50) 665-2179

Request for Proposals

Issue Date: 17 January 2005 Due Date: 18 February 2005

I. GENERAL INFORMATION

The Azerbaijan Legal Database (ALPI) Project is seeking proposals from qualified sources to develop software applications and related services, as further described in Section V, below, "Statement of Work".

The objective of the ALPI Project, which began in June 2004 and is scheduled to end in September 2005, is to achieve improved access to the governing laws and regulations of Azerbaijan on a sustainable basis. The database, in the most simplest of terms, will contain the text of documents, and a means to find and retrieve these documents. Distribution of the database is expected to be over the Internet and on CD-ROMs.

The government of the Republic of Azerbaijan (GoAZ) will be responsible ultimately for sustaining the database. The National Center for State Courts (NCSC), under contract to the United States Agency for International development (USAID), is responsible for providing the necessary assistance to the GoAZ to achieve the ALPI Project's objective.

NCSC has established an office in Baku to fulfill its responsibilities under its contract with USAID. The NCSC/Baku office is functioning as a prototype facility for the development and implementation of the ALPI Project database. Since start-up in the summer of 2004, the NCSC/Baku office has undertaken numerous activities to define and develop the database, using off-the shelf software (e.g., Microsoft Word, Microsoft Access, etc.). The NCSC/Baku office operates in a shared resource local area network environment.

Based on its experience to date, the NCSC/Baku office recently completed a systems analysis and database study, and a documentation of the workflow activities and tasks required to sustain the database in a "model" workflow environment. The purpose of this Request for Proposal (RFP) is to develop the software to maintain, update and distribute the database based on the technical requirements contained in the systems analysis and database study, as modified by the documentation of workflow activities and tasks. The software is to be implemented on the equipment currently installed in the NCSC/Baku office. The NCSC/Baku office will continue to operate as the prototype workflow environment, to include incorporating enhancements to the software, until such time as the GoAZ is able to assume responsibility for maintaining, updating and distributing the database on a sustainable basis.

In its broadest terms, three software components are required to be developed under this RFP. First, the software required to support the maintenance and updating of the database within the workflow environment (Database Management software); second, the software required to permit personnel within the workflow environment to create, delete and modify the database content (Content Management System software); and third, the software required to permit public access to the database in the production environment over the Internet and on CD-ROMs (Public User software). For convenience, in this RFP we refer to personnel within the workflow environment as the "Workflow Users", and those accessing the database over the Internet or on CD-ROM as the "Public Users."

The development and implementation of the first two software components – the Database Management software and the Content Management System software – have a higher priority than the development and implementation of the software required by the Public Users to access the database. Accordingly, the Database Management and the Content Management System software components are to be completed, tested and operational in the NCSC/Baku office first. The NCSC/Baku office would like to have these two components implemented within one month after the final award is made to the successful vendor, unless otherwise agreed to by the vendor and NCSC. The timeframe for the completion and testing of the Public User software component is yet to be determined.

All responsible sources, inclusive of for-profit businesses, educational institutions, and not-for-profit organizations, are eligible to respond to this RFP. NCSC is not responsible for expenses incurred by a bidder in preparing its proposal.

The deadline for submission of proposals is 18 February 2005. Expressions of interest by potential bidders should be received in writing by the NCSC/Baku office by 24 January 2005. Organizations that have registered an expression of interest should submit questions in writing by 28 January 2005. Answers to all such questions will be sent to all organizations that have filed an expression of interest on the same day, which day will be no later than 7 February 2005. Unless otherwise provided for, payment for services rendered in connection with the Statement of Work will be based on a deliverables-based payment schedule established in the final contract award. Payment for services rendered will be within one month following receipt of the vendor's invoice.

Proposals should be submitted to Charles Shapiro, Chief of Party, Azerbaijan Legal Database (ALPI) Project, in both electronic and hard-copy formats. The proposal and supporting documentation should be submitted via email attachment (MS Word, MS Excel preferred) to: budshapiro@yahoo.com. Hard copies of the proposal and supporting documentation should be submitted to: 610-611, J. Jabbarli Str., Caspian Plaza Business Center, Baku, Azerbaijan.

II. GUIDELINES FOR SUBMITTING PROPOSALS

The Statement of Work (Section V, below) contains five (5) subsections. It is necessary to respond to each of these subsections in this RFP. The response should follow the sequence, format, and title headings for each subsection. In addition, the response must include the following information:

1. Technical Approach and Work Plan. Describe how the vendor will carry out the Statement of Work, inclusive of: (a) technical approach and schematics; (b) software development; (c) training methods; and (d) time-line for implementation. It is important that vendor be able to provide services in Baku.
2. Project Personnel. Identify and provide resumes for the key personnel who will be responsible for each aspect of the project.
3. Institutional Capacity and Performance References. (a) Describe the experience and capabilities of the vendor's organization to provide the services required in the Statement of Work, and (b) provide a list of all contracts or customers involving the provision of similar or related services over the past three years (both commercial and governmental). The information to be submitted under "b", which information may be used by NCSC to discuss vendor's past performance, must include:

- Name and address of the organization for which the work was performed;
- The current telephone number and email address of a responsible technical representative of that organization;
- A brief description of the services provided.

4. Cost Proposal. Provide a budget for the services in sufficient detail to allow a complete analysis of the costs proposed.

III. GUIDELINES FOR EVALUATING PROPOSALS AND MAKING AWARD

Evaluation

Proposals will be evaluated and scored using the following evaluation criteria:

Proposal Sections	Evaluation Criteria	Possible Points	Points Awarded
Technical Approach and Work Plan	Proposal presents a technically sound and cost-effective approach for implementing the Statement of Work, to include vendor's ability to provide services in Baku	35	
Project Personnel	Personnel identified in the proposal possess the technical background, language skills, and prior professional work experience that will enable them to perform the services with a high probability of success	20	
Institutional Capacity & Performance References	Proposal demonstrates experience of the firm/organization in completing similar projects as described in the Statement of Work	25	
Cost Proposal	The Offeror's cost proposal will be evaluated in terms of reasonableness, cost-consciousness, and best value to the United States Government considering both technical and cost factors	20	
	TOTAL	**100**	

Contract Negotiations, Award and Notification

NCSC may conduct discussion with vendors found to be in a competitive range based on the above four factors. NCSC reserves the right, however, to make an award without discussions. Unsuccessful vendors will be notified as soon as possible following an award.

NCSC intends, subject to USAID approval, to award a subcontract to the vendor whose combined score for the above four factors promises the greatest value. NCSC reserves the right not to award a subcontract under this RFP.

IV. Background

This section of the RFP provides general background information, to assist potential vendors in preparing their proposal. Three subsections are included: (1) an overview of the Azerbaijan legal system; (2) an overview of the Azerbaijan legal database system design; and (3) an overview of the current situation, which includes additional background information, and the activities completed or in progress within the NCSC/Baku office.

Overview of Azerbaijan Legal System

Under the Constitution of Azerbaijan, adopted in November 1995, Azerbaijan's legal system is comprised of the country's "normative acts" (also referred to as "framework legal documents"). The Constitution defines the normative acts in the following hierarchy: the Constitution, Acts Adopted by Referendum, Laws Enacted by the Parliament, Decrees issued by the President, Resolutions issued by the Cabinet of Ministers, and Regulations issued by the Executive Departments (i.e., the Ministries). A normative act may be amended by a subsequent normative act of equal level in the hierarchy. Amendments involve additions, deletions, and other changes in the provisions of the existing document.

The Constitution also specifies that the country's Constitutional Court has the sole power to "interpret" the normative acts. The decisions of the Constitutional Court, however, are not normative acts. Presidential Orders and Orders of the Cabinet of Ministers are also not normative acts. However, because Presidential Orders and Orders of the Cabinet of Ministers are included in the official digest, *Toplusu*, they are considered framework legal documents.

The most significant governing rules of Azerbaijan are contained in "Codes" (e.g., the Criminal Code, the Civil Code, the Land Codes, etc.). There are 17 Codes currently in effect in Azerbaijan. The Codes are adopted by laws passed by the Parliament and approved (or ratified) by a Presidential Decree. As such, the 17 existing Codes have the effect of law and are critical to the Azerbaijan legal system.

In the Azerbaijan legal system, as in most other legal systems, a relationship frequently exists between two legal documents. For example, a framework legal document may implement or amend an earlier issued framework document. Another example is a framework legal document that adopts or amends a Code.

Overview of Azerbaijan Legal Database System Design

The Azerbaijan legal database, first and foremost, needs to contain the complete text of all of the country's framework legal documents, and tools to find and retrieve these documents. The documents need to be made available in both text format and in image format; the image formatted version is necessary to enable a Public User to verify the accuracy of the text-formatted document.

The database also needs to contain the text of the complete and current version of each Code and each framework legal document that has been amended, and a tool to find and retrieve them. The process of integrating amendments into an existing Code (e.g., the "Civil Code") or into an existing framework legal document (e.g., the "Law on Advocacy") in order to have a complete, current version of that Code or framework document is referred to as "codifying." For the purposes of the development and maintenance of the Azerbaijan legal database, the database system (the "system") needs to include a text editor with specific tools set forth in Section V

below, to enable personnel within the workflow environment (the Workflow Users) to codify the existing 17 Codes and the various amended framework legal documents.

The system should enable Workflow Users to create, maintain, update, and distribute the contents of the database on a timely and accurate basis. This technology must not only support the substantive activities of the Workflow Users, but must also provide administrative tools to manage these activities efficiently and effectively.

In addition, the system should enable end users (the Public Users) to have access to the database on a reliable and convenient basis over the Internet and on CD-ROMs. The interface for accessing the database in either distribution media needs to be the same.

The system design for finding and retrieving framework legal documents (including any codified framework legal document) is different then the design for finding and retrieving codified Codes.

The principal tool that will be used to search for and retrieve framework legal documents will be key information (referred to as "metadata") about each framework document. Each framework legal document will have a metadata record associated with it. The metadata record will be created, maintained and updated by the Workflow Users in the workflow environment. All metadata will be entered in fields. Some fields will permit multiple entries, such as the subject-matter classification field. Certain fields are designed to be queried by a Public User using the search features of the Public User software. The system design should include the use of pull-down menus, and other efficient tools for entering data in the fields to reduce the amount of manual data entry required by Workflow Users, thus reducing the margin for error.

The Public User software should enable a Public User to retrieve framework legal documents, including any codified framework document, by entering a search query against the data contained in the metadata records for all framework documents, and by using a character string search against the text of these documents. The result of a query will be a list of all framework legal documents that satisfy the search criteria. The list will contain only summary information (taken from the metadata) about each document on the list. A selection from the list will then return the complete metadata record for that document, with the option to view the text of the document in either text format or image format, and to view the metadata records for those documents that are related.

Each codified Code will also have a metadata record associated with it. The system design for retrieving a codified Code, however, unlike the system design for framework document searching, does not use either a search of the metadata records for the Codes or a character string search of the text of the Codes. Instead, the system design will use a "Browse" feature (that is, a pre-defined search) to allow a Public User to use a pull-down menu to select the desired Code. Once a Code is selected, the complete metadata record for that Code will be displayed with the option to view its text in text format. Pre-defined searches will also permit implementation of other commonly-requested queries, such as, for example, recent framework legal documents added to the database.

A codified Code, unlike a framework document, will have neither an official identification number nor an image file associated with it. A codified framework legal document, on the other hand, has features that are similar to a codified Code (i.e., the amended provisions and no associated image file), but is nevertheless a framework document associated with the initial framework document that enacted it. As such, the metadata for a codified framework document will be the metadata associated with the framework legal document that enacted it. Stated

differently, the metadata record for a framework document that has been amended and codified will have associated with it (1) the text of the document as issued in text format, (2) the text of the document as issued in image format, and (3) the text of the document in its current codified version.

The display of the text of any codified Code or of any codified framework legal document will also include, in a separate pane, a list of all framework documents that were used by the Workflow Users in compiling it. For a codified Code, the list will identify the framework document that adopted it and each framework document that subsequently amended it. For a codified framework document, the list will identify the framework document that enacted it and each subsequent framework document that amended it. These lists, produced from the data contained in the "related documents" metadata field, will provide a convenient means for a Public User to verify the accuracy of all additions, deletions and other changes that appear in the codified document.

In summary, the system design enables the Workflow Users, using the software to be developed pursuant to this RFP: (a) to add new framework legal documents to the database on an accurate and timely basis; (b) to codify amended Codes and amended framework documents on an accurate and timely basis; (c) to create and update metadata records for each framework document and each Code on an accurate and timely basis; and (d) to distribute the entire database over the Internet and on CD-ROMs on a reliable basis and with an easy to use Public User interface.

Overview of the Current Situation

The NCSC/Baku office has undertaken numerous activities to date to create the initial database, all within its prototype workflow environment. The following subparts provide additional background information regarding the database content, and general information relating to the current status of the NCSC/Baku office activities completed or in progress.

Additional Background

- The GoAZ Office of the President publishes in print format the official monthly digest *Toplusu*, which contains the higher level framework legal documents (e.g., Constitution, Laws, Presidential Decrees and Orders, and Cabinet of Ministers Resolutions and Orders).
- The GoAZ Ministry of Justice publishes in print format the official monthly digest *Bullitini*, which contains the lower level framework legal documents (i.e., Ministerial Regulations).
- Publication of *Toplusu* and the *Bullitini* began in July 1997 (the initial issues of Toplusu contain the Constitution – the very first document – and all other framework legal documents issued since November 1995 under the new Constitution).
- The cumulative volume of framework legal documents published in *Toplusu* from July 1997 through September 2004 is approximately 6,100 in nearly 22,000 pages (less than 4 pages per document on average).
- The volume of framework legal documents currently published annually in *Toplusu* is averaging about 800 in 3,000 pages (again, an average of less than 4 pages per document).
- Comparable numbers for the *Bullitini* are not yet available, but it appears that the volume published cumulatively and on a current annual basis in the *Bullitini* is substantially less than the volume published *Toplusu*.
- There are two dates associated with each framework legal document: (1) the date the document was issued; and (2) the date the document became effective.

- The effective date for each framework legal document is the date published in an official newspaper (e.g., the *Azerbaijan Gazette*), which usually is within a day or two of the date of issuance, unless provided otherwise in the framework legal document.
- Each framework legal document has an official identification number, and one or more "citations" (i.e., reference(s) to where the document is published).
- There are 1101 approved subject-matter classification categories for framework legal documents contained in a three tier classification system: tier one, containing the main categories, has 45 classifications; tier two has 452 classifications within the 45 tier one classifications; and tier three has 604 classifications within the 452 tier two classifications.
- There are 17 Codes currently in effect.
- There are three dates associated with each codified Code: (1) the date the framework legal document adopting the Code was issued; (2) the date the framework document adopting the Code was effective; and (3) the date the last issued framework document amending the Code was effective.
- There are 2 potential "Related Document Type" relationships between 2 framework legal documents: the first type is "Implementing", in which one framework document implements an earlier issued framework document or, if issued on the same day, a framework document higher in the hierarchy of framework documents; and the second type is "Amending", in which one framework document amends an earlier issued framework document.
- There are 2 potential relationships between a framework legal document and a Code: the framework document either adopts a new Code or amends an existing Code (these two possibilities are grouped together as the Related Document Type "Source Document").

Current Workflow Status

- The NCSC/Baku office has completed the conversion of each of nearly 22,000 pages published to date in *Toplusu* to an individual JPEG file.
- The NCSC/Baku office has completed the conversion of all of the nearly 6,100 documents published to date in *Toplusu* to image format, with each document being a Microsoft ("MS") Word file containing each page associated with the document in JPEG format (the individual JPEG files are cut and pasted into the MS Word file).
- The NCSC/Baku office is in the process of completing the conversion of all 6,100 documents published to date in *Toplusu* to text format (projected completion date is the end of January 2005), with each document being a MS Word file.
- The NCSC/Baku office has adopted a logical file naming convention for each framework legal document in text format and in image format, and has adopted a logical naming convention for each individual JPEG file.
- The NCSC/Baku office has completed the codification process for 6 of the 17 currently effective Codes, with the 7th projected to be completed by the end of January 2005 – each codified Code is a MS Word file.
- The NCSC/Baku office has adopted a logical naming convention for each codified Code.
- The NCSC/Baku office has developed a computer-based prototype form for capturing in MS Access and an "express" version of MS SQL the metadata for framework legal documents and for codified Codes.
- The NCSC/Baku office, using the prototype metadata form, has entered the metadata for most of the framework legal documents converted to date to both text and image format.
- The NCSC/Baku office has created a MS Word based image-formatted annual compilation of *Toplusu* on CD-ROM (as a by-product of the database).
- All data (MS Word files, JPEG files, and metadata records and tables) are currently maintained on the NCSC/Baku office server.

- The NCSC/Baku office recently installed MS Small Business Edition on its server (package includes MS SQL, MS Exchange Server, and MS ISA Server).
- The NCSC/Baku office has completed a systems design and database analysis study.
- The NCSC/Baku office is in the process of documenting the existing Workflow User activities within its prototype workflow environment, and of developing a "model" Workflow User activities within the ultimate workflow environment.
- Access to the Internet in Azerbaijan is quite limited (with the exception of Baku) but is improving constantly, both in terms of availability and bandwidth.
- The number of potential Public Users is currently not known, but does not appear to be excessively large.

V. Statement of Work

Introduction

This section of the RFP sets forth the general and specific technical requirements for the software that is to be developed by the successful vendor. In addition to the information contained in the Current Workflow Status discussion above, this "Introduction" covers the key assumptions and general requirements that need to be considered and addressed where appropriate by each vendor in formulating its proposal. Following the "Introduction" are five subsections, numbered sequentially, that set forth the specific requirements for the design of the database system. There five subsections are:

1. Requirements for the Database Management Software
2. Requirements for the Workflow User Content Management System Software
3. Requirements for the Public User Interface Software
4. Requirements for the two (2) CD-ROM applications
5. Recommendations for Additional Required Hardware or Software; Miscellaneous

The successful vendor's proposal must respond to all five subsections, according to the specifications contained in the subsection and any applicable "General Requirements" set forth below.

Key Assumptions and General Requirements

- The database content needs to include, at a minimum: (1) all framework legal documents; (2) all codified Codes; and (3) a metadata record for each framework legal document and each codified Code. The database should also include updated versions of each amended framework legal document (i.e., codified framework documents).
- The text of each framework legal document (including any codified framework document) needs to be in the database system as an XML file.
- The text of each framework legal document (including any codified framework document) needs to be in the database system in plain text format (to permit character string searching by Public Users).
- The text of each codified Code needs to be in the database system as an XML file.
- The character set for text in XML files needs to be Unicode UTF-8 (Palatino Linotype).
- Each page of a framework legal document needs in the database system as a JPEG file.
- The data contained in each framework legal document's metadata record and in its plain text formatted file needs to be used to search for, and to retrieve documents.
- The metadata records for each pair of related documents needs to be cross linked.
- The database system needs to be designed for delivery over Web-based environments (the Internet, intranets, and extranets).

- The database system needs to provide for security within the Workflow Users' environment.
- The database system needs to provide for tracking of Workflow User activities.
- The database system needs to support the generation of management and other types of administrative reports.
- MS SQL needs to be the underlying database system application software.
- The metadata captured to date by the NCSC/Baku (using MS Access and an "express" version of MS SQL) needs to be ported to the new database system.
- The database system needs to support all activities and tasks required by Workflow Users, to include (1) adding the text of new framework legal documents to the database system, both in XML format and in plain text format, (2) adding the individual pages for new framework legal document to the database system in JPEG format, (3) adding the metadata records for new framework legal documents to the database system, (4) codifying Codes, and incorporating the current version of each updated Code, with its updated metadata record, to the database system, (5) codifying framework legal documents that have been amended, and associating them with their respective enacting and amending framework legal documents, (6) accessing all data in the database system (that is, all data that has been released for Public User access, and all data that is in a "work-in-progress" state), (7) determining which data in the database system is "live" (that is, available for release for Public User access), (8) uploading the "live" database system to the production server hosting Public User access over the Internet, and (9) offloading the "live" production database system to the server producing the master CD-ROM for manufacturing the CD-ROMs for Public User access over all platforms and operating systems.
- The interface for Public User access over the Internet and on CD-ROMs needs to be the same (in terms of design, features, and functionality).
- The same interface for Public User access needs to be available to Workflow Users to enable access to both the released "live" database and the data in the database system that has not yet been released for Public User access.
- The database system needs to provide the means for a user (both a Public User and a Workflow User) to find and then have displayed the documents in the database.
- The database system needs to support the capability by Workflow Users to produce and maintain, as a by-product of the database, complete compilations of framework legal documents on CD-ROMs in image format (this compilation will be in addition to the CD-ROM containing the "live" database distributed to Public Users).
- The software developed under this RFP needs to be supported and maintained by the successful bidder for one year after completion and acceptance by NCSC.
- The vendor needs to provide complete documentation of all software developed under the contract.
- The vendor needs to provide comprehensive training of NCSC/Baku office staff in the application and use of all software developed under the contract.
- The vendor needs to transfer ownership of the source code for all software developed under the contract to NCSC.

1. Requirements for the Database Management Software

Vendor will develop and provide a database management (DBM) software application in accordance with the guidelines and technical specifications set forth in this subsection's parts below and in the General Requirements noted in the *Introduction* to this Statement of Work. Subparts 1.1 through 1.4 provide the specifications for the DBM software to implement the database system design to support all substantive activities relating to framework legal documents and codified Codes; and subpart 1.5 sets forth the general guidelines for the DBM software to implement the database system design to support administrative requirements.

Vendor's "Technical Approach and Work Plan" for this subsection should discuss its general approach and provide details as indicated. Vendor's "Cost Proposal" for this subsection should be totaled, and include breakdowns as necessary or as vendor deems appropriate.

1.1. Framework Legal Documents. The DBM application should enable a Workflow User to enter the following metadata for a framework legal document:

- Official Identification Number
- Title
- Subject-Matter Classification(s) in accordance with a three tier structure
- Issuing Type
- Issuing Institution
- Issue Date
- Effective Date
- Citation(s)
- Signatory
- Registration Date
- Registration Number
- Status
- Path to Text of Document in XML Format
- Path to Document Pages in JPEG Format
- Path to Text of Codified Framework Document in XML Format
- Related Document Type (i.e., "Amending", "Implementing", or "Source Document")

The proposed tables for framework legal documents are as follows:

Table	Description
framework	Contains certain data listed above in the 1.1 bulleted items and currently being captured by the NCSC/Baku office for each framework document. The table also includes identification numbers, internally generated by the system, that relate the data in other tables to the data in this table.
framework_citations	Contains individual citation information corresponding to each framework document. Allows for multiple citations to be issued for each framework document.

framework_classification_names	Contains information regarding the names of the subject-matter classifications for framework documents.
framework_classifications	Contains individual classification information corresponding to each framework document, in accordance with the three tier classification system. Allows for multiple classifications to be issued for each framework document.
framework_relation_type	Contains the related document type information for related framework documents and codified codes (i.e., “Amending”, “Implementing”, or “Source Document”). Separating this data from the framework table conforms to normalization standards and reduces human error in data entry.
framework_related_frameworks	Contains the data linking an individual framework document to the metadata record for other framework documents that are related.
framework_related_codified_codes	Contains the data linking an individual framework document to the metadata record for related codified Codes. .
framework_related_codified_framework	Contains the data linking an individual framework document to the metadata record for related codified framework document.
framework_issuing_types	Contains the issuing type information for framework documents. Separating this data from the framework table conforms to normalization standards and reduces human error in data entry.
framework_institutions	Contains the issuing institution information for framework documents. Separating this data from the framework table conforms to normalization standards and reduces human error in data entry.
framework_signatory	Contains the signatory information for framework documents. Separating this data from the framework table conforms to normalization standards and reduces human error in data entry.
framework_status	Contains the status information for framework documents. Separating this data from the framework table conforms to normalization standards and reduces human error in data entry.
framework_text	Contains the text of the framework document in plain text format.

codified_framework_text	Contains the text of a codified framework document in plain text format.
codified_framework	Contains the path to the XML file of the codified framework document
framework_images	Contains the path and page range ordering information for the individual image pages of framework documents.

1.2. Codified Codes. The DBM application should enable a Workflow User to enter the following metadata for each codified Code:

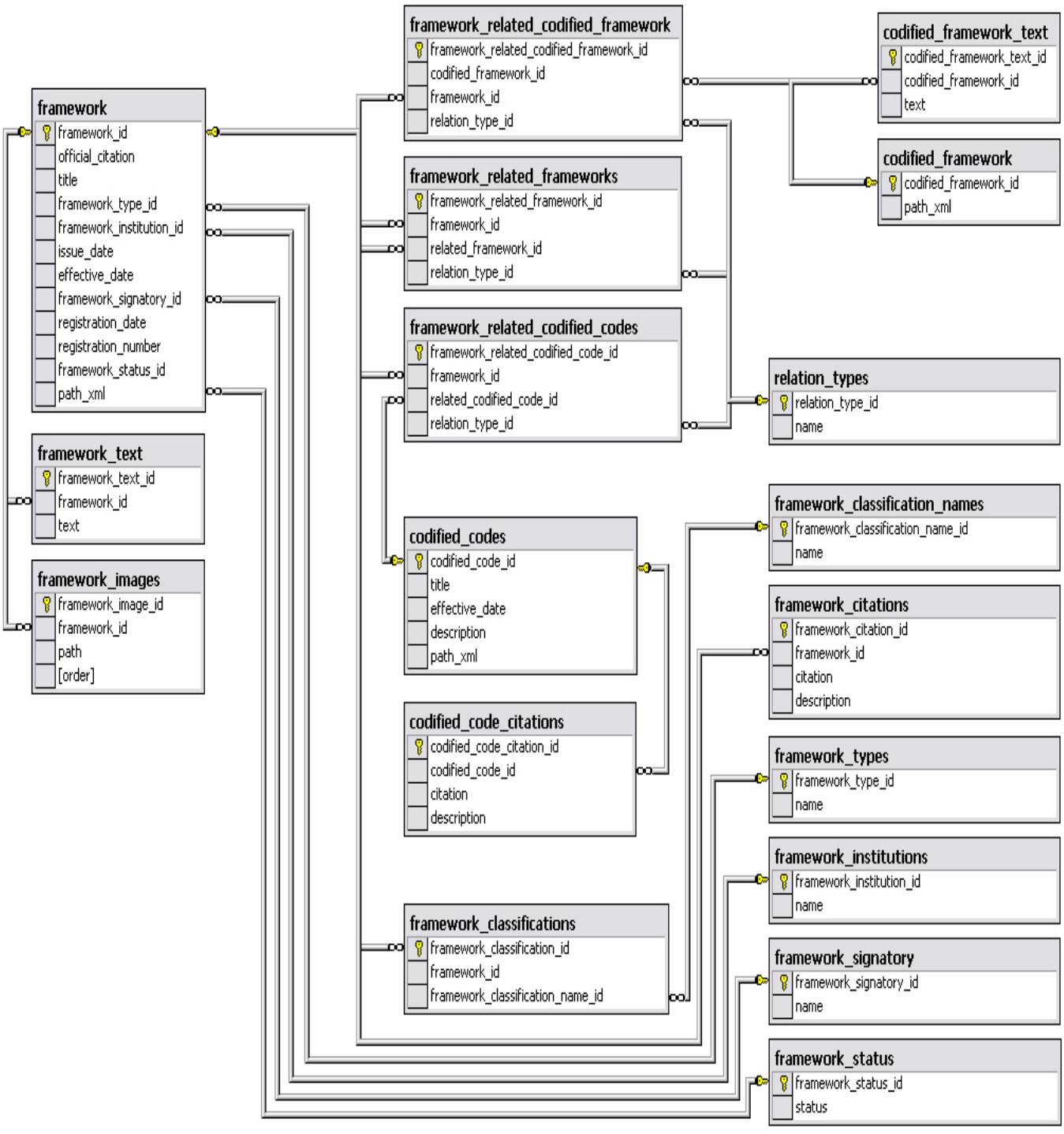
- Title
- Citation
- Description
- Path to Document in XML format

The proposed tables for codified Codes are as follows:

Table	Description
codified_codes	Contains certain data listed above in the 1.2 bulleted items. The table also includes identification numbers, internally generated by the system, that relate the data in other tables to the data in this table.
codified_code_citations	Contains individual citation information corresponding to each codified code. Allows for multiple citations to be issued for each codified code.

The proposed database design shown in Figure 1, below, is based on a normalized relational approach consisting of a set of data tables described in subparts 1.1 and 1.2, above.

Figure 1 – Proposed Database Design



1.3. Conversion of MS Word documents to XML format and to Plain Text format. The DBM application should provide a capability to convert all existing framework legal documents and codified Code documents that are MS Word files to XML files, with the character set for the text being Unicode UTF-8 (Palatino Linotype). The application should also provide a capability to convert framework legal documents from XML format to plain text format.

1.4. Simple String Searching. The DMB application should include capabilities for simple string searching of framework legal documents in the field containing document text in plain text format. The Workflow User interface for this capability should be the same as that developed for Public User access (see subsection 3, below).

1.5. Workflow Environment Administrative Support Requirements. The DBM application should be designed to support the following general administrative requirements:

- Security within the workflow environment
- Different types of Workflow Users (such as personnel doing data entry, codifying Codes, supervising, etc.), with different levels of database system access
- Tracking of Workflow User activities
- Workflow environment management reports

Vendor's "Technical Approach and Work Plan" should discuss its proposed plan, with cost estimates, for incorporating into the DBM application the above general administrative requirements, to include the tables necessary to support different types of users with different levels of access to the database system.

2. Requirements for the Content Management System Software

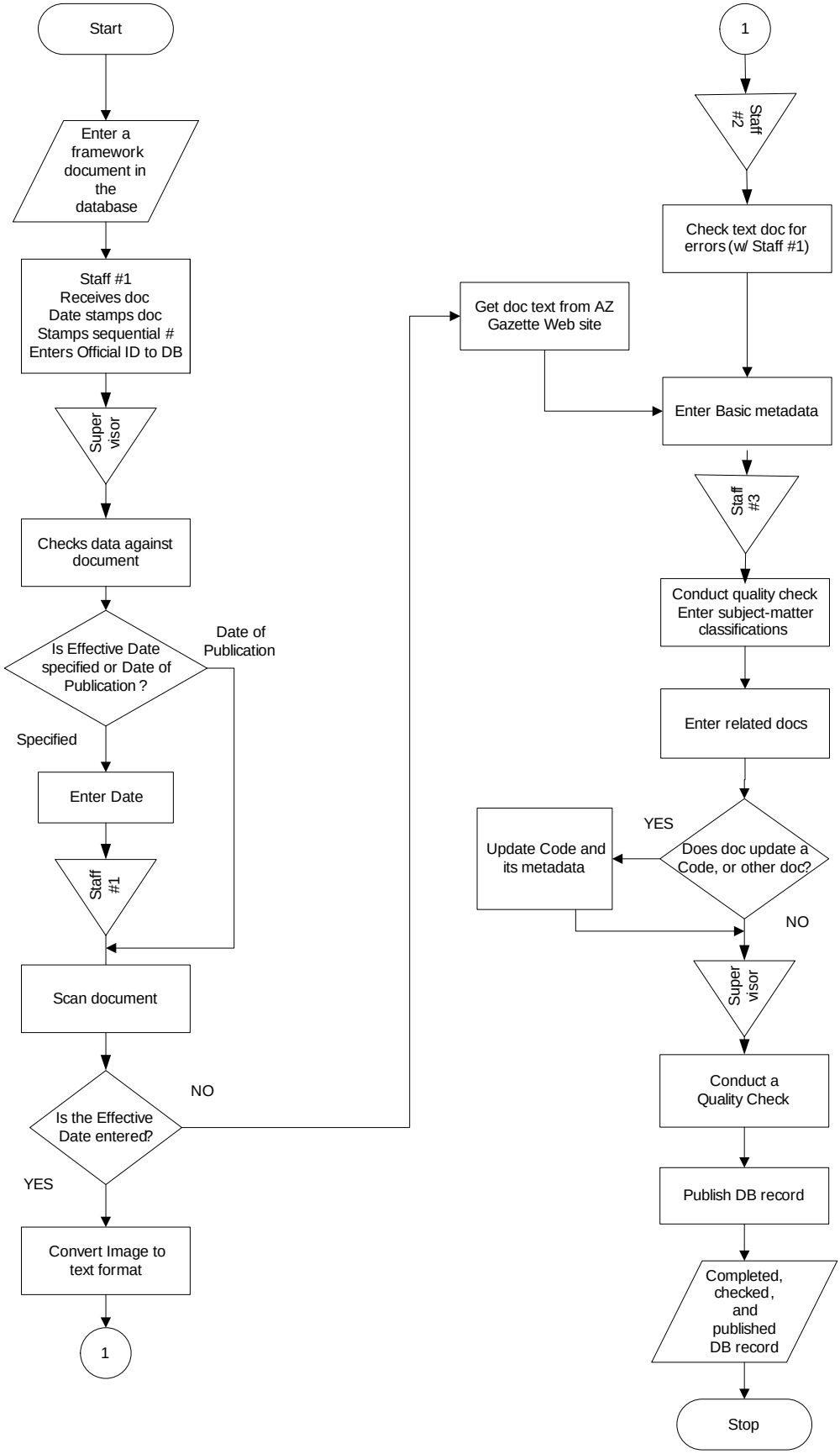
The Content Management System (CMS) is the software application that operates over an Internet Protocol network. It manages Workflow User access to the database system at specific levels of authorization, and provides the means to enable Workflow Users to add, edit, delete and manage the data contained in the various data tables and files within the database system. The CMS application also needs to track Workflow User activities and to provide status reports regarding those metadata records and document files that have been approved for Public User access, those that are pending approval for Public User access, and those that are works in progress.

Vendor will develop and provide a CMS software application in accordance with the guidelines and technical specifications set forth in this subsection's parts below and in the General Requirements noted in the *Introduction* to this Statement of Work.

Vendor's "Technical Approach and Work Plan" for this subsection should discuss its general approach and provide details as indicated. Vendor's "Cost Proposal" for this subsection should be totaled, and include breakdowns as necessary or as vendor deems appropriate.

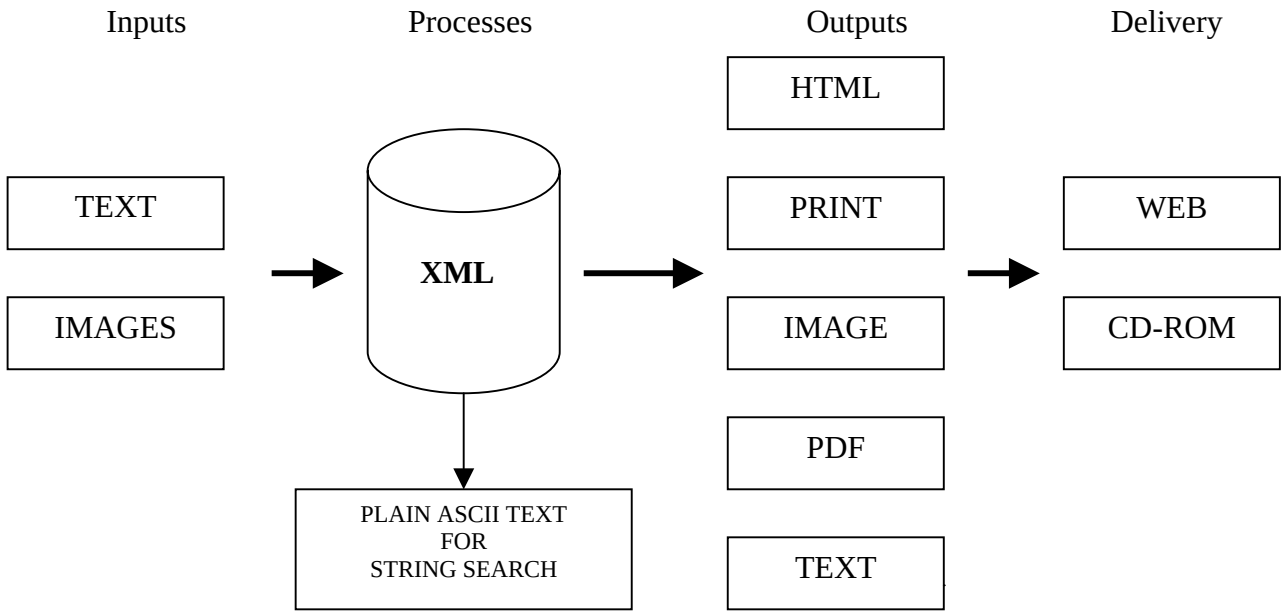
Figure 2, on the next page, shows the proposed "model" workflow environment. Potential vendors should use this model to have a better understanding of the "inputs-outputs", the "processes", the "decision points", and the "change of control points" in the workflow environment. This understanding should assist in developing vendor's "Technical Approach and Work Plan", as well as the various administrative and management tools necessary to support the implementation of the database system.

Figure 2 – Proposed Model Workflow



2.1. Single Source Publishing. The proposed database system design incorporates a "single source publishing" capability, as shown schematically in Figure 3, below.

Figure 3 – Proposed Single Source Publishing



Vendor's "Technical Approach and Work Plan" should (1) discuss the advantages and disadvantages of using a "single source publishing" approach, (2) discuss the advantages and disadvantages of using a "What-You-See-Is-What-You-Get" (WYSIWYG) text editor (with functionality that includes such editing and formatting capabilities as footnotes, endnotes, strike-throughs, cut and paste, changes in text, etc.), within the CMS software, and (3) discuss the types of reports that should be included in the CMS software for tracking Workflow User activities and for providing the status of metadata records and document files that are approved, pending for approval, and works-in progress. General cost estimates should be provided as vendor deems appropriate in each of these discussion topics. The successful bidder's "Technical Approach and Work Plan" and its general cost estimates for these items will be the foundation for negotiating the deliverables required for them under the final contract award.

2.2. Metadata and Document Files. The CMS application should support the following:

- Multiple Workflow Users with assigned authorization levels (assigned at the administrative level)
- Enter data using:
  - pull-down menus
  - textboxes
  - popup menus
  - checklists
  - pop-up calendar
  - radio buttons
- Enter multiple data entries in designated metadata fields
- Upload document files
- Incorporate text editing features, to include footnotes, endnotes, strike-throughs, cut and paste, copy and paste, changes in text, hypertext links, and other standard word processing functionality

- Detect input errors
- Save a record
- Search, retrieve, and edit a metadata record and a document
- Print a metadata record
- Print a document file

2.3. Workflow User Authorization. The CMS application should incorporate levels of authorization for each Workflow User. The application should provide that the Workflow User be assigned a level by the administrator of the database. Each level and a description of the functions available to the Workflow User for that level are described in the table that follows.

CMS Workflow User Access Levels

Name	Description
User	Add documents; add metadata records; search or browse metadata records for editing specified fields; search and browse document files for editing text.
Supervisor	Add documents; add metadata records; search or browse metadata records for editing specified fields; search and browse document files for editing text; add to drop down menus; approve metadata records and document files for Public User access.
Admin	Add documents; add metadata records; search or browse metadata records for editing specified fields; search and browse document files for editing text; add to drop down menus; approve metadata records and document files for Public User access; list, add, edit and delete Workflow Users; change Workflow User password and access level.

Following a successful login, the CMS application should provide the features and functions that correspond to the authorized level for that Workflow User, as noted in the above table.

2.4. Search and Browse. The CMS application should provide that the Workflow User, regardless of authorization level, be presented with the Search and Browse features that are identical to those available to the Public User. The search functions, described in subsection 3, below, *Requirements for Public User Interface Software*, should enable a Workflow User to retrieve documents for review or editing.

2.5. Related Documents. The CMS application should provide for cross linking of the metadata records of each pair of related documents, based on the "Related Document Type". There are three Related Document Types: (1) "Amending", which involves two framework documents; (2) "Implementing", which involves two framework documents; and (3) "Source Document", which involves a framework document and a codified Code. The application should enable the Workflow User to identify and link a new framework legal document's metadata record with the metadata record of each of its related documents. The application should then automatically enter the cross-link in the metadata record of each related document.

This related document functionality is designed to enable a Public User, when retrieving any document, whether a framework document or a codified Code, to identify each and every other document in the database that is related to it. See subsection 3, below, *Requirements for Public User Interface Software*.

The Table below, Figure 4, shows the required cross-linking relationship between each pair of related documents. For convenience, the related document is referred to as the "target" document. The Table also shows the term that should be displayed to show the relationship, depending upon which one of the two related metadata records is being viewed by the Public User.

Figure 4 – Related Documents Relationships

Related Document Type	Related Document	Related Document Displayed as	Target Document	Target Document Displayed as
Amending	New Framework	"Amends"	Earlier Issued Framework	"Amended By"
Implementing	New Framework	"Implements"	Earlier Issued Framework (or if issued on the same day, the one higher in the hierarchy)	"Implemented By"
Source Document	New Framework[1]	"Source Document"	Codified Code	"Source Document"

2.6. Text File Formats. The CMS application should provide for storing the text of framework legal documents and codified Codes as XML files. The successful bidder should provide an application (1) for converting existing MS Word text files automatically to XML files, (2) for converting future imported text files in MS Word or other formats[2] automatically to XML files, and (3) for converting XML files automatically to plain text files. In addition, the successful bidder should provide an application for converting all text in XML files to Unicode UTF-8, Palatino Linotype.

2.7. Add Documents. The CMS application should provide that to add data to the database system, the Workflow User, by choosing the appropriate function, is presented with either the "Add Framework Document Data" screen or the "Add Codified Code Data" screen. These two screens are shown below in Figures 5 and 6, respectively. Each screen lists the fields, the table which holds the field, the method of data input, whether the field is Mandatory (M) or Optional (O), and the error-checking method.

[1] The new framework may either adopt a new Code or amend an existing Code; the cross links between the two related documents' metadata records should not be applied until after a newly adopted Code has been initially codified or until after an existing codified Code has been updated to include the new amendment(s).

[2] It is anticipated, for example, that some new framework legal documents will be available on various web sites

Figure 5 – Add Framework Document Data Screen

Field	Table	Input Type	M or O	Error-Check
Title	framework	Textbox	M	>5 characters
Official Identification Number	framework	Textbox	M	= designated convention and unique
Citations	framework_citations	Popup[3]	O	If entered, must be unique
Issuing Type	framework_types	Dropdown	M	One value selected
Classifications	framework_classifications	Checklist	M	At least one value selected
Institution	framework_institutions	Dropdown	M	One value selected
Issue Date	framework	Textbox + Calendar[4]	M	Valid date convention; within acceptable date range
Effective Date	framework	Textbox + Calendar	M[5]	Valid date convention; within acceptable date range
Signatory	framework_signatory	Dropdown	M	One value selected
Registration Date	framework	Textbox + Calendar	M[6]	Valid date convention; within acceptable date range
Registration Number	framework	Textbox	M[7]	Valid number within convention
Status	framework_status	Radio	M	One value selected
Text File	framework	File Inputs	M	Path to valid XML document
Image File	framework	File Inputs	M	Path to valid JPEG file for each page
Codified File	framework	File Inputs	O	Path to valid XML codified framework document
Related Documents	framework_related_framework framework_related-codified_code	Popup[8]	O	N/A
Related Documents Type	framework_related_framework_types	Radio	O[9]	One value selected for each related document

[3] A window that allows for the entry of multiple citations and descriptions for those citations
[4] A calendar object would be created to allow for easy selection of a date; same for the Effective Date and Registration Date.
[5] If specified, then Mandatory; otherwise Optional.
[6] If a Ministerial Regulation, then Mandatory; otherwise not applicable.
[7] If a Ministerial Regulation, then Mandatory; otherwise not applicable.
[8] A window would open to allow for the searching and adding of metadata records for related framework legal documents and codified Codes.

In addition to the data entered by the Workflow User, the CMS application should provide that certain data be automatically populated by the system into the record in the Add Framework Document screen, including:

- Data Entry User Identification
- Date of Data Entry

Figure 6 – Add Codified Code Data Screen

Field	Table	Input Type	M or O	Error-Check
Title	codified_codes	Textbox	M	>5 characters
Citations	codified_code_citations	Popup	O	If entered, must be unique
Description	codified_codes	Textbox	M	> 20 characters
Text File	codified_codes	File Input	M	Path to valid XML document
Related Documents	framework_related_frameworks;	Popup[10]	O	N/A
Related Documents Type	framework_related_framework_types	Radio	O	Only "Source Document" type

In addition to the data entered by the Workflow User, the CMS application should provide that certain data be automatically populated by the system into the record in the Add Codified Code screen, including:

- Data Entry User Identification
- Date of Data Entry

3. Requirements for the Public User Interface Software

Vendor will develop a Web site software application using Microsoft .NET framework accessible over the Internet across all hardware and browser platforms to serve as the Public User Interface (PUI) to the database system, in accordance with the guidelines and technical specifications set forth in this subsection's parts below, and in the General Requirements noted in the *Introduction* to this Statement of Work. The text of framework legal documents and codified Codes should be in XML format.

Vendor's "Technical Approach and Work Plan" for this subsection should discuss its general approach and provide details as indicated. Vendor's "Cost Proposal" for this subsection should be totaled, and include breakdowns as necessary or as vendor deems appropriate.

[9] If a Related Document, then Mandatory; otherwise not applicable.
[10] A window would open to allow for the searching and adding of related Framework Documents.

3.1. Home Page and Searching Feature. The Web site Home Page should contain the following:

- General welcome information and instructions on using the PUI (text to be provided by NCSC/Baku office).
- A grid containing the Search functionalities for framework legal documents listed in Figure 7, below. The PUI application should provide for searches based on multiple fields and multiple criteria within certain fields. "And" logic is applied when searching on multiple fields. Inclusive "or" logic is applied when searching on multiple criteria within a field.
- Pre-defined searches ("Browse"), to provide a list of links to codified Codes and a list of links to other specified documents, such as the Constitution, recently added documents, etc. The application should provide the list of codified Codes by Title, with each Title being hyperlinked to the full metadata for that Code (see subpart 3.4, below). The order of the list will be determined by the NCSC/Baku office. Any pre-defined searches other than for codified Codes will be defined by the NCSC/Baku office

Figure 7 – Fields for Search Functionality for Framework Legal Documents

Field	Simple String Search	Metadata Field Search[11]
Official Identification Number		Textbox
Title	X	Textbox
Subject-Matter Classifications		Dropdown
Issuing Type		Dropdown
Issuing Institution		Dropdown
Issue Date		Date Range
Effective Date		Date Range
Citations		Textbox
Signatory		Dropdown
Registration Date		Date Range
Registration Number		Numerical Range
Status		Dropdown
Text of Documents (framework and codified framework documents)	X	Textbox

3.2. Search Results – Framework Legal Documents. The results of a search (whether from the search functionality or from a pre-defined search) should be a list of the framework legal documents matching the search criteria. The information contained in the list for each document should be the following, using the data contained in the document's metadata record:

- Title (complete title)
- Issue Date
- Official Identification Number

[11] Use of more than one field is optional ("and" logic applies), and use of multiple entries within those fields that have multiple criteria is optional (inclusive "or" logic applies).

The application should provide that the search results be ordered for display by Issuing Type and Issuing Institution in hierarchical order; and within this hierarchy, in ascending chronological order by Issue Date. The hierarchical order by Issuing Type and Issuing Institution is as follows:

- Constitution
- Acts Adopted by Referendum
- Laws
- Presidential Decrees
- Presidential Orders
- Resolutions of the Cabinet of Ministers
- Orders of the Cabinet of Ministers
- Ministerial Regulations

The PUI application should provide that the Title displayed for each result is hyperlinked to the full metadata for that item (see subpart 3.3, below).

3.3. Full Metadata Screen – Framework Legal Documents. The full metadata screen for a framework document metadata record in the database should include:

- The following metadata
  - Official Identification Number
  - Title
  - Subject-Matter Classification(s) – only the top level (the 45 tier one categories)
  - Issuing Type
  - Issuing Institution
  - Issue Date
  - Effective Date
  - Citation(s)
  - Signatory
  - Registration Date (if applicable)
  - Registration Number (if applicable)
  - Status
- A link to the XML file containing the text of the codified framework document (if applicable)
- A link to the XML file containing the text of the document as issued
- A link to the document's associated pages as issued in JPEG format
- A link to the metadata record of each related document (in accordance with the table set forth in subpart 2.5, above)
- A link to the previous screen

The information to be displayed for each linked related framework document is its:

- Title (complete title) hyperlinked to the full metadata screen for that document
- Issue Date
- Official Identification Number

The information to be displayed for each linked related codified Code is its:

- Title (complete title) hyperlinked to the full metadata screen for that Code
- Issue Date (of adopting framework document)
- Effective Date (of adopting framework document)
- Effective Date (of last amending framework document)

The design and layout for the display of the full metadata screen for framework legal documents, including all related documents, will be determined by the NCSC/Baku office.

3.4. Full Metadata Screen – Codified Codes. As noted in subpart 3.1, above, the Home Page should provide a list of codified Codes by Title, with each Title being hyperlinked to the full metadata for that Code. The full metadata screen for a codified Code record in the database should include:

- The following metadata
    - Title
    - Issue Date of Adopting Framework Document
    - Effective Date of Adopting Framework Document
    - Effective Date of Last Amending Framework Document
    - Citation(s) (if applicable)
    - Description
- A link to the XML file containing the text of the codified Code
- A link to the metadata record of each related framework document (only framework legal documents of the Related Document Type "Source Document" – see the table set forth in subpart 2.5, above)
- A link to the previous screen

The information to be displayed for each linked related framework document is its:

- Title (complete title) hyperlinked to the full metadata screen for that document
- Issue Date
- Official Identification Number

The design and layout for the display of the full metadata screen for a codified Code, including all related documents, will be determined by the NCSC/Baku office.

3.5. Document Text Display and Navigation. When the text of a document is displayed through the Internet access software, the PUI application should provide that one page of text be displayed at a time to provide faster access to the text by the Public User. The application should provide for navigation within the text of a document through hypertext links.

When displaying a codified Code, the PUI application should also provide that the screen display, in a separate pane, identifying information for that Code's related framework legal documents (that is, of the Related Document Type "Source Document"[12]). The list should be in ascending order by Issue Date. The identification information for each related framework document should be a subset of its metadata (the subset will be defined by the NCSC/Baku office), and be hyperlinked to the full metadata screen information for that document, with the functionality as described in subpart 3.3, above.

This same display functionality should also be implemented for any codified framework legal document – that is, the system should identify, in a separate pane, the initial framework document that enacted the codified framework document and each related subsequent framework document that has amended it (that is, of the Related Document Type "Amending"). The identification information for the enacting framework document and each related amending framework document should be a subset of its metadata (the subset will be defined by the NCSC/Baku office), and be hyperlinked to the full metadata information for that document, with the functionality as described in subpart 3.3, above.

[12] The Source Documents are the framework legal document that adopted the Code, and each subsequent framework legal document that amended the Code.

4. Requirements for the CD-ROM applications

4.1. Database Distributed on CD-ROM. Vendor will develop an application to allow off-line search and retrieval of the database from a CD-ROM using a standard Internet browser and a simple interface that the typical computer user can fully utilize without any additional costs. The requirements for this application should be in accordance with the guidelines and technical specifications set forth in this subpart, and in the General Requirements noted in the *Introduction* to this Statement of Work.

Vendor's "Technical Approach and Work Plan" for this subpart should discuss its general approach and provide details as necessary. Vendor's "Cost Proposal" for this subpart should be totaled, and include breakdowns as necessary or as vendor deems appropriate

To achieve the objective of this subpart, a new, simple application is recommended. The application could be written in Visual Basic, C++, or MS.NET. The application would provide a graphical user interface similar to the public Web-based interface. This interface would integrate with a simple database program, such as JetDB (MS Access) or MSDE (Microsoft Data Engine), which would reside on the CD-ROM along with the viewer application. When inserted in the Public User's CD-ROM drive, the application would prompt the user to save and install the simple database program and application on the user's Personal Computer. This provides the Public User with the capability to search and retrieve documents on the CD-ROM in the same way as through the Web-based application.

To publish the database on CD-ROM then, the following files must be included on the CD-ROMs:

1. Public User interface application
2. Database application (JetDB or MSDE)
3. Complete metadata records of the database
4. Text files
5. Image files

Based on the current estimates of the NCSC/Baku office with respect to the number of documents that would be added annually to the database, two or more CD-ROMs might be required to publish the database, depending on how frequently the database is published. The frequency of publishing the database on CD-ROMs and the content to be distributed on the CD-ROMs will be determined by the NCSC/Baku office.

Vendor's "Technical Approach and Work Plan" should discuss the feasibility of the above recommendation, and if appropriate, offer other alternatives to achieve the goal of making the database available to Public Users on CD-ROM, with the same interface as that developed for access to the database over the Internet.

4.2. By-Product Image Compilations Distributed on CD-ROM. Having a JPEG file for each page published in the official print digests containing the framework legal documents provides an opportunity to compile the images to produce an electronic version of these digests. The NCSC/Baku office is currently compiling these JPEG files into MS Word document files (one file for each document), and creating a Table of Contents file (also in MS Word) containing hyperlinks to retrieve the image of any selected framework legal document. The plan is to have the Workflow Users in the workflow environment compile each year's worth of framework

documents on one CD-ROM. To produce this by-product CD-ROM, Workflow Users can continue to use MS Word or can convert the files to PDF format.

Vendor's "Technical Approach and Work Plan" for this subpart should offer its recommendations for implementing this requirement, to include alternative approaches for formatting the data. The recommendations should include cost and any other considerations vendor deems appropriate, such as software required for creating the data files and software required by users for accessing the files. Vendor's "Cost Proposal" for this subpart should be totaled, and include breakdowns as necessary or as vendor deems appropriate.

5. Recommendations for any Additional Required Hardware and Software; Miscellaneous

Vendor's "Technical Approach and Work Plan" for this subsection should discuss its general approach and provide details as necessary. Vendor's "Cost Proposal" for this subsection should be totaled, and include breakdowns as necessary or as vendor deems appropriate.

5.1 Database Architecture and Underlying Software. The application should be written in the Microsoft.Net framework and Microsoft SQL for the underlying database management software.

5.2 Network Architecture. The successful bidder should provide the recommended network architecture, including hardware and software, for:

- the workflow environment to support all activities for the creation, maintenance, updating and distribution of the database system by Workflow Users;
- the web-hosting production environment to accommodate the Public User interface; and
- the workflow environment in which to create the two CD-ROM products.

Hardware recommendations should be based on anticipated Public User use and performance standards.

5.3 Hardware Recommendations. Brand name servers, such as Dell, HP, IBM, and so forth, should be recommended.

5.4 Additional Recommendations and Requirements. Vendor should provide recommendations for data redundancy, data backup and restore, security and firewalls, and other features (such as updates to the production server from the Workflow User server(s), application updates, etc.), to create a secure and robust data production environment with 99.99% uptime.

In addition:

- The vendor needs to support and maintain the software developed under the contract for one year after completion and acceptance by NCSC.
- The vendor needs to provide complete documentation of all software developed under the contract, to include software users' manuals (substantive and administrative) and tutorials on how to use the various features of the database system.[13]
- The vendor needs to provide comprehensive for training of NCSC/Baku office staff in the application and use of all software developed under the contract. Training should be more than a verbal walk through of the software with the NCSC/Baku office staff.

[13] Vendor should consider implementing the tutorials with software that shows the actual mouse clicks and what happens when a user makes a selection

- As part of the documentation and training requirements, vendor should consider creating “job aids” (that is, short tutorials on key concepts and definitions and how to perform procedures, such as, for example, uploading documents to the database system using the CMS software); these job aids, if provided, should be accessed through an ever-present HELP button that appears on every screen.
- The vendor needs to transfer ownership of the source code for all software developed under the contract to NCSC.

ATTACHMENT VI

List of Government Officials Invited to Office Opening

Office of President
Novruz Mammedov, Chief of Foreign Relations Department
Shahin Aliyev, Chief of Department on Legislation and Legal Expertise Affairs
Ali Hasanov, Chief of Public-Political Affairs
Elmir Valizade, Head of Information Technology Department

Parliament
Safa Mirzoyev, Chief of Staff
Namig Aliyev, Head of International Department
Samad Seyidov, Head of International Relations Permanent Commission
Gultakin Haciyeva, MP
Anar Mammadkhanov, MP
Asim Mollazada, MP
Naira Shahtakhtinskaya, MP
Malahat Hasanova, MP
Asaf Haji Hajiyev, MP
Ali Husseynov, Chairman of Permanent Commission of Legislature and Statehood, Milli Mejlis

Ministry of Justice
Togrul Musayev, Deputy Minister
Aydin Gasimov, Deputy Minister
Chingiz Kasumov, Head of Analytical Department
Dilara Ragimova, Head of Legislative Department and Public Awareness
Faiq Gurbanov, Head of International Relations Department
Aydin Aliyev, Deputy Head of Department

Ministry of Foreign Affairs
Ibrahim Hajiyev, Head of Department

Central Election Commission
Mazahir Panakhov, Chairman
Rovzat Gasimov, Head of International Department

ATTACHMENT VII

Azərbaycan Respublikası qanunvericilik aktlarının məlumat bazası yaradılmışdır

Dekabrın 15-də "Caspian Plaza" Biznes Mərkəzində "Azərbaycan qanunvericiliyinin məlumat bazası" layihəsinin təqdimatı keçirilmişdir.

ABŞ Beynəlxalq İnkişaf Agentliyinin maliyyə dəstəyi ilə həyata keçirilən layihə Azərbaycan Respublikasının qanunlarını özündə ehtiva edən məlumat bazasının yaradılmasında Azərbaycan hökumətinə yardımın göstərilməsini nəzərdə tutur. 1 milyon ABŞ dolları dəyərində olan layihənin icrasına bu ilin avqust ayında başlanılmışdır.

Məlumat bazasındakı CD disklərdə qanunvericilik aktları, şərhlər, əlavələr yerləşdirilmişdir.

Layihənin icraçısı ABŞ-ın Ştat Məhkəmələri üzrə Milli Mərkəzinin yerli ofisi, onun tərəfdaşı isə Azərbaycan Respublikasının Ədliyyə Nazirliyidir.

Təqdimat mərasimində layihənin icraçı təşkilatının rəhbəri Çarlz Şapiro bazanın texniki elementləri barədə ətraflı məlumat vermişdir.

Mərasimdə iştirak edən ABŞ-ın ölkəmizdəki səfiri Rino Harniş, Prezident Administrasiyasının informasiya resursları və texnologiyaları mərkəzinin rəhbəri Elmir Vəlizadə, aparatın İctimai-siyasi şöbəsinin məsul işçisi Tahir Süleymanov və Xarici İşlər Nazirliyinin departament rəhbəri İbrahim Hacıyev və Ədliyyə Nazirliyinin şöbə müdiri Faiq Qurbanov layihənin ölkəmizdə aparılan informasiya texnologiyalarının inkişafı üzrə milli strategiyaya uyğunluğunu və bunun Azərbaycan və ABŞ hökumətləri arasındakı uğurlu əməkdaşlığın bir nümunəsi olduğunu bildirmişlər.

AzərTAc